ABSTRACT OF THE

Croonian Lectures

ON THE

CLIMATE AND FEVERS OF INDIA.

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LECTURE II.

IN this lecture Sir Joseph Fayrer considered the types of endemic fever, commonly referred to malaria, that under certain seasonal influences assume an epidemic character. In India there is great difficulty in differentiating one fever from another, the cause and result of the fever being determined by personal peculiarity and by general rather than by any one specific cause. The fevers differ from those of temperate climates rather in degree than in essential principle. The chief factors in their causation seem to be changes of temperature, meteorological states, emanations from marshy or dry soil, or from ground polluted by fæcal matter or from impure water; such also being determining causes of cholera, dysentery, diarrhœa. The specific poisons which produce typhus and enteric fever are probably as active in India and other tropical countries as here; but fever with Peyerian ulceration may occur as a result of other causes as well as fæcal contamination; for that which in one man produces congested spleen and stomach, in another congestion and ulceration of the colon, may in a third, under modifying influence, have the effect of congesting, swelling, and, finally, ulcerating the lower end of the small intestine and its glandular structures. As to the alleged malarial origin of cholera and dysentery, they seem closely linked etiologically and appear to bear a close resemblance to fevers, though they do not seem always to be under the same epidemic law of prevalence.

Intermittent Fever.—No part of the plains of India is exempt from intermittent fever, though some suffer more than others. Where climatic and local conditions intensify the cause, the fever tends to assume a severer and remittent type. Remission or intermission, however, is not an absolute indication of intensity, for a remittent may be mild, whilst an ague may become pernicious. The types of malarial fever are only different modes of expression of the same thing, and such terms as jungle fever, Terai fever, Bengal fever, Deccan fever, Peshawur fever, Mysore fever, Moultan fever, Nagpore fever, Sind fever, Arracan fever, merely express local varieties with no fundamental differences, though there may be certain subordinate features which distinguish each, depending on certain local climatic and meteorological conditions; so of Gibraltar, Malta, Africa, and Cyprus. Intermittent fever is much the same in India as elsewhere. The three typical forms occur—the quotidian, with the recurrence in twenty-four hours; tertian, in forty-eight; and quartan, in seventy-two hours. These have been further divided into double quotidian, double tertian, triple tertian, double quartan, and so on. The average duration of the fit is said to be about sixteen hours in the quotidian, ten in the tertian, and six in the quartan, but these are subject to much variation. The exacerbation is generally early morning for the quotidian, noon for the tertian, three to five for the quartan. Tertian seems to be most common in Europe. In Africa, the West Indies, and India the quotidian is most frequent. Quotidian is apparently the type in first attacks in India. Tertian occurs more frequently in those who have suffered previously, and in whom alternation of temperature, fatigue, irregularities of living and so on, re-excite it—evidence not of recent but of pre-existing disease. Natives suffer to a greater extent than Europeans, though certain tribes appear to acquire some immunity. In the European and Native troops of the Madras army in the years 1829 to 1838, 4 per cent. more natives were attacked than Europeans. This is accounted for by the different conditions under which the classes respectively lived. Men are more liable, two to one, than women of the same class; children suffer at about the same rate, but their mortality is 1 per cent. greater. The day and hour of the recurrence of the paroxysm are most uncertain, and this irregularity may be peculiar to Indian paroxysmal fevers, probably in part due to the modifying influence of antiperiodic remedies early had recourse to. Ague is clearly a neurosis in the outset; the *materies morbi* acting on the central nervous system sets up vaso-motor irritation, causing dilatation and engorgement of the vessels supplied by the splanchnic, the skin and external parts being brought into an opposite condition, and hence the rigor, pallor, and shrunken skin, followed by a reaction to greater cutaneous vascularity, pyrexia, and profuse sweating. We know no more, however, of the molecular change which causes the disturbance than we know how quinine diminishes blood-pressure or affects periodicity, or how a drop of cobra virus instantly paralyses the respiratory centres. The cold stage is generally preceded by lassitude, muscular pains, dull aching sensations extending along the limbs, yawning, sighing, sneezing, anorexia, thirst, headache, coated tongue (though not in all cases), nausea, or vomiting; sometimes loose, dark-coloured motions. Slight febrile changes, occasionally followed by diaphoresis, may, especially in those who have suffered previously, constitute the whole paroxysm, and, passing away, leave the patient as well as before; but more frequently they usher in a rigor, preceding which there is increased elimination of urea (as shown by Professor Parkes and Sydney Ringer), which is continued through the cold and pyrexial stages, diminishing until the intermission in it falls below the standard of health. The amount of urea and the temperature stand in relation to each other, the result of increased metamorphosis. Parkes found that the watery part is increased before and during the cold and hot stages; most abundant at the termination of the cold stage, it decreases slowly during the hot, rapidly during the sweating stage; nor does it appear to stand in relation to the quantity of water drunk. The uric acid is also increased considerably during the fit; and after it urates are deposited freely, though to this there are occasional exceptions. The chloride of sodium is increased during the hot stages (Traube and Ringer) to five times its amount, and phosphoric acid to one-eighth. The chilly feeling soon passes into rigors, the features are shrunken and pallid, the fingers shrivel and turn blue, the skin is rough (goose skin), the body is in a state of tremor, the teeth chatter, and the muscular system is convulsed until the bed or couch is shaken. Often there are nausea, sickness, and headache. The temperatnre, notwithstanding the feeling of cold, is high, but there is a sense of internal heat which is very distressing; this and the nausea or retching are due to the highly congested state of the gastric intestinal mucous membrane. The temperature begins to rise before the chilly sensation comes on and attains its maximum, which may be 104° to 106° towards the end of the hot stage. In typical cases the temperature returns during the interval to its normal standard. This cold stage varies in duration from a mere passing chill with a barely perceptible rigor to severe shiverings, lasting two or more hours; reaction then takes place, bringing in the hot stage. There are great variations in the average duration of the cold stage; in some it is entirely absent, in others of a few minutes, and in others of one, two, three, or even more hours' duration. This stage is not always free from danger. Death by collapse occurring, or, after a partial reaction, symptoms of collapse supervene, but this is happily rare, and it may be mistaken for the collapse of cholera. After a certain duration reaction takes place, the skin becomes hot and flushed, the pulse quickened, the temperature rises to 105° or 107°, the urine is diminished, and there is thirst; the heart and arteries pulsate violently, the head aches, the temples throb, and delirium may supervene. This stage lasts for an uncertain period, from an hour to twelve or fourteen hours, but at length gives way; moisture bedews the forehead, and gradually the whole body, until the sweating is so profuse as to saturate the clothing and bedding. This continues for a variable period, when a condition of apyrexia is established, and the patient feels relieved, though greatly exhausted, till the recurrence of the next paroxysm, which is not free from danger, for fatal syncope or exhaustion may occur. When this seems to threaten, the patient should be warned against an attempt to rise or make any exertion. The period of incubation varies, depending probably upon the intensity of the miasm, the susceptibility of the individual, and the condition of his health

at the time. Those who have suffered before seem most susceptible, a chill without fresh exposure to malaria sufficing to develop the fever. Simple ague generally sets in in a few days after exposure, but longer and shorter periods of incubation are known.

Among the inhabitants of notoriously malarious districts a considerable proportion do not suffer from fever at all, but present a sallow anæmic appearance, tumid abdomen, weak and irritable heart, hæmic murmurs, and a general appearance of cachexia, dulness, and hebetude; it may be neuralgia, asthma, albuminuria, or anasarca with ascites. The spleen is enlarged, and the liver also, but not so frequently as the spleen. The bowels are irritable, diarrhœa is not unfrequent, and as the cachexia progresses there is a tendency in the diarrhœa to assume the white appearance of the so-called tropical diarrhœa. The cachexia becomes more profound, and death follows from asthenia, or, as I believe, not unfrequently from coagula in the right heart or pulmonary artery. Sometimes no distinct febrile paroxysm occurs at all, but indefinite symptoms, followed by a gradual lapse into the state of cachexia above described.

In this state, especially where the spleen is enlarged, the patient becomes hæmorrhagic or scorbutic, and there is a tendency to ulceration or gangrene; noma, gangrene of the scrotum, or cancrum oris, frequently occur among natives, and the slightest abrasion or ulceration is apt to pass into a state of phagedæna. Persons who have lived long in India are often subject to inflammatory absorption of the alveolar processes. The gums are spongy and bleed. The bone is absorbed, and the teeth become exposed, and finally lifted up and loose. Inflammation occurring causes abscess at the root of the tooth. There is a tendency to the formation of fibrinous coagula in the heart and arteries; death frequently occurs rapidly, with symptoms of apnœa. The tendency to embolism in the arterial circulation is shown in the gangrene of limbs and other parts, which frequently proves a source of danger and of death in the course of other diseases in persons who have lived for some time in a malarious climate, or operates in a minor degree in producing boils and abscesses. Urethral fever following catheterism is another morbid susceptibility impressed on the subjects of malarial cachexia. I may also notice a peculiar form of fever which is apparently connected with a malarial origin, in which the spermatic cords, epididymis, scrotum, and occasionally the prostate gland, are congested and swollen, attended with great suffering, and sometimes accompanied by gastralgia, nausea, and vomiting. The association of this form of fever with elephantiasis is now observed attending the periodic hyperæmia which leads to permanent hypertrophy—a condition frequently associated with a disordered and dilated state of the lymphatics, and accompanied by, if not dependent on, periodic returns of fever, which the natives attribute to lunar influences; and by the presence of filariæ in the blood, as pointed out by Lewis, Manson, Bancroft, and others. These febrile recurrences are sometimes called elephantoid fever, and the condition of hypertrophy elephantiasis, which thus seems to be closely related etiologically to other forms of malarial fever. Verneuil and Brudel have drawn attention to the occurrence of glycosuria as a consequence of malarial fever. It does occasionally occur with or after such fever, whether as a consequence or not cannot be said with certainty. Malarial poison also retards the healing of wounds. Death in an uncomplicated case of ague is rare.

Maclean says: "In Bengal out of a strength of 344,152 with 111,687 admissions, the percentage of deaths to strength was 0·24, of deaths to the admissions 0·76." Death is frequent in the remittent and pernicious forms, and from complications and sequelæ. When death occurs early in the pernicious forms there may be no evident change; but when protracted the malarial influence involves changes in the viscera, especially in the spleen and liver, and secondary changes in the blood. Some say there is an increase in the number of the white corpuscles; there is excess of water, and accumulation of pigment from destruction of the red corpuscles. The spleen sometimes attains great size, in rare instances the capsule becomes considerably thickened and tough, and the normal weight of 5 to 7 ounces increases to pounds, as much as 18 or 20 lb. have been recorded—even 40 lb.—whilst it has been found as low as two ounces (Russell). In the soft and pulpy state it is easily injured, and is frequently the cause of fatal accidents from spontaneous rupture among natives, or a state of cirrhosis may be induced and become permanent. In this condition of the spleen the blood becomes leucocythæmic, and anæmia is the result. Changes of climate and treatment may remove the enlargement, but whilst it remains it is an abiding cause of fever and cachexia. The liver also may become chronically congested and indurated and enlarged from interstitial deposit, but not to the same extent as the spleen. It is dark in colour, marked with pigment patches, or may be somewhat softened as well as enlarged. In this condition its functions are impeded, and various complications result. In some forms of remittent there are vomiting and purging, jaundice, absence of bile in the dejecta, and deepened colour of the urine. This may be attended with constipation or flatulence, in some cases diarrhœa. Acute inflammation of the liver seldom occurs, but in some cases it suppurates insidiously; the rigors are liable to be confounded with those of fever, and it is only pain and bulging that reveal the real cause of the rigors. The muscular system may also degenerate, the heart sharing in the change and becoming a source of danger and suffering. I have seen cases of this kind in which, while other signs of malarial poisoning had disappeared, cardiac asthenia remained. Changes also take place in the cerebro-spinal centres and membranes; effusion, exudations, and thickenings may occur, causing partial paralysis of the limbs or obscure cerebral symptoms; hyperæmia of the cerebral and spinal substance, punctiform extravasation, pigmented patches, discolouration and effusion of serum into the membranes of the brain or cord; or, it may be, molecular changes in the centres themselves. Although the structural changes may be of permanent character, it is encouraging to know how completely, though slowly, many of these lesions are recovered from, in a temperate climate. When the spermatic cords are affected they widely distend the abdominal rings and cause hernia, whilst the visceral congestion, extending to the kidneys, gives rise to albuminuria. The kidneys, in some fatal cases of malarial fever, may be found swollen, congested, and undergoing structural changes. In cases that have become complicated with dysentery, serious structural changes are often found in the colon and rectum; ulceration and thickening in various stages, which are not always confined to the large gut, but extend beyond the ileo-colic valve into the ileum, where ulceration of the mucous membrane and of Peyer's patches resembles that of specific enteric fever.

Remittent Fever.—Remittent fever prevails throughout India, and causes much of the mortality ascribed to malaria; it is merely another expression of malarial action, and may commence or end as ague. Intermittents may become irregular, and pass gradually into the more serious remittent, of which the lecturer met with a severe and fatal form on the North-eastern frontier, among the natives. It is to this form that the term jungle fever (not always so severe) is applied, and the various characters in different places have given rise to qualifying terms, as bilious-remittent, malarial dysentery, or choleraic fever. The period of incubation varies, and the uncomplicated fever in a previously healthy person generally terminates favourably in eight or ten days; but when it is the result of exposure to more concentrated miasm, or when complicated, it is of longer duration, and may become dangerous, or even fatal. Its accession is preceded by languor, malaise, chills, cold feeling in the back and loins, loss of appetite, pain in the epigastrium, head, back, and limbs, vertigo, faintness, nausea, or vomiting; the tongue is coated with yellowish or white fur; the pulse is irregular—conditions that may continue for some days before the cold stage sets in (which is not so well pronounced as that of an intermittent), and is sometimes altogether absent; it gives way to heat, thirst, dryness of skin, severe headache, quick, hard pulse, pain in the eyeballs, and insomnia, the temperature rising to 104°, 106°, 107°; wandering or delirium may set in and the breathing become oppressed. This continues for some hours, six or often longer, until the remission sets in; the skin then becomes moist, the pulse softer, the pain abates, the sufferer is relieved, perhaps sleeps, though want of sleep is generally a distressing symptom. The remission lasts from six to thirty-six hours or more, when the fever returns. The first exacerbation is often the longest, but the second is frequently more severe, and may set in without any premonitory chills or cold stage. If not now checked, succeeding paroxysms become more severe with scarcely any remission, and a state of great prostration with delirium, unconsciousness, a brown dry tongue, sordes, and hiccough may supervene; yellowness of the skin and vomiting of bile and altered blood (black

vomit) sometimes precede death. The exacerbation may recur once or twice daily, but there is no regularity; the remission nearly always *takes place in the morning*, and is sometimes so slight that it may be overlooked. The character of the remissions, and the early or deferred return of the exacerbations, are indications of the probable severity or lenity of the attack. Well-marked remissions, free diaphoresis, diminished temperature, and headache, or cerebral symptoms, are favourable indications; whereas high fever, ill-defined remissions, accelerated exacerbations, with delirium, coma, and typhoid symptoms, vomiting of blood and bile, or symptoms of collapse appearing as the hot stage is passing away, indicate danger. The first attack sometimes comes on suddenly, with very little, if any, premonitory warning, and without almost any cold stage. But it generally happens that there have been previous attacks of intermittent, with imperfect and irregular intermissions; or in very malarious localities the first paroxysm has been succeeded by a remission only. In favourable cases amendment begins in from six to eight days or sooner: the remissions become more complete, the patient sweats freely, the tongue begins to clean and moisten at the edges, the sordes disappear, the headache and thirst diminish, and the appetite begins to return. In a simple attack the prognosis is generally favourable; but the brain, the lungs, or the abdominal viscera may be implicated. Sometimes the symptoms are so sudden and severe as to be mistaken for insolation. The patient, being overwhelmed at once by the poison, passes into a state of coma. The type of fever will depend a good deal on the individual as well as on the circumstances under which he is attacked. In the robust and plethoric young Englishman it will be sthenic; in less robust individuals there may be a tendency to the adynamic form; the exacerbations reduplicate, the nervous power becomes depressed, and the patient passes into a low tremulous typhoid state, and the fever assumes a continued form. Sudden collapse may occur in this form of remittent, whilst in the sthenic forms cerebral symptoms, suggestive of apoplexy or effusion, may appear; but it is well to bear in mind that such symptoms may be a result of the direct action of the poison on the nerve centres, and that convulsions, especially in children, as pointed out by Dr. Payne, are peculiarly likely to be so caused. All acute cerebral symptoms, however, are not of this character; inflammatory cerebral mischief does occur occasionally, and the delirium that passes into coma may be so caused, but the history of the case might encourage hope that the symptoms depended on malarial disturbance. The lungs and bronchi are liable to be implicated; congestion and inflammation may occur, and natives of India during the cold season are very prone so to suffer. Jaundice, either as the result of mechanical obstruction of the ducts, or of arrested function, occurs; or bilious vomiting and epigastric tenderness are of frequent occurrence; the spleen is not much enlarged, unless there have been previous malarial poisoning, nor is there the same amount of cachexia and anæmia as in intermittent, unless, indeed, the disease have continued long or recurred often. The kidneys may share in the general abdominal congestion, but albuminuria is comparatively rare in remittent fever, whilst in the yellow fever of the West Indies it is said to be of constant occurrence. In any form of chronic malarial poisoning the kidneys may suffer organically, and chronic Bright's disease result. Rheumatism is a frequent complication among the natives, but it occurs also among Europeans, and is a troublesome symptom in those who return to England for the recovery of health. It is chronic and affects the extremities and trunk often, but not the heart. Dyspepsia and irritability of the stomach are not unfrequent complications of chronic cases, causing debility and cachexia.

Pernicious Forms.—The cold stage may be unduly prolonged and occupy the whole paroxysm, the patient either sinking, as in the collapse of cholera, or, if he recover, reaction taking place slowly. The hot stage may be intensified and prolonged, the patient becoming delirious, comatose, convulsed, when the condition resembles that of thermic fever or apoplexy; stupor begins with the commencement of the paroxysm, and gradually deepens into complete coma and death, or the symptoms may gradually disappear as the period of the paroxysm passes away. Again, the sweating stage may be very profuse and prolonged; the pulse sinks, and death may take place from exhaustion; or, after the sweating stage has passed, extreme depression, during which the patient is intelligent, but hardly sensible of his own weakness, continues, when any exertion, or even the erect posture, is attended with danger. The pernicious symptoms sometimes come on suddenly, with little warning, probably after one or two ordinary paroxysms.

Masked Malarial Fevers.—To certain conditions the term "masked" has been given; neuralgia with imperfectly developed fever, hot hands, aching, pain extending along the course of the great nerve trunks in the limbs; gastralgia, often intense, and various forms of disturbed innervation, anæsthesia, paresis, functional derangement of the liver and other abdominal viscera, nervous irritability, dyspepsia, asthma, bronchial irritation, insomnia, and a variety of symptoms, all pointing to the effects of malarial poison on the nervous system. The symptoms may be those of collapse, as in cholera, or of apoplexy, epilepsy, cerebral effusion, hæmorrhage from stomach, bladder, bowel, or kidney; but the history and the circumstances under which the symptoms occur indicate their malarial origin, and the treatment, which generally is by some antiperiodic remedy.

Malarial Cachexia.—A frequent result of exposure to malarial influences and of repeated attacks of periodic fever is anæmia, even though there may have been no fever, an enfeebled condition of the health, often a profound state of cachexia, with which is associated structural changes in the abdominal viscera and notably of the spleen. The sufferer has a puffy blanched face, pearly conjunctivæ and lips, short and hurried respiration, weak cardiac action, hæmic murmurs, and a feeble pulse, a tumid abdomen, not unfrequently dropsy, œdematous lungs and areolar tissue generally, wasted muscles, and a bronzed discoloured skin, with a large and probably hardened spleen, extending down towards, sometimes as far as, the iliac fossa (ague cake). Such a state is common in the notoriously malarial regions of India, where the whole population partake more or less of this appearance, and where the physical degeneration is accompanied by an almost equally well-marked mental and physical torpor. I have known individuals return to this country too late to profit by the change. I have also seen a profound state of malarial anæmia in persons who, having resided for some years in malarial districts, on examination were found to be free from splenic or hepatic enlargement, but in whom the the kidneys had suffered, as evidenced by urine of a low specific gravity loaded with albumen and containing renal casts. The presence of albuminuria is, however, not frequent, nor is it, when in small quantity, of such serious import as might at first sight be supposed. Malarial cachexia, however, may exist with very little or without any obvious visceral complication; though I am inclined to think that if examination be carefully made, some will generally be found to exist; and so long as it continues, so long will the cachexia remain and the person be liable to recurrence of fever. Asthma is also a frequent mode in which malarial poisoning expresses itself, and though frequently purely functional, yet it is liable to produce emphysema and chronic bronchial changes.

Treatment of Malarial Fevers.—In ordinary attacks of intermittent in India the general plan is to administer at first an aperient, and if there be signs of gastric irritation, or a tendency to dysentery or diarrhœa, to give one or two full doses of ipecacuanha. During the cold stage warm drinks and warm applications, and during the pyrexia cooling drinks, ice to the head, and diaphoretics. In the sweating stage simply rest and quiet, with avoidance of chills. Quinine should now be given, in five-grain doses, every three or four hours, or if that prove insufficient ten grains; generally the former suffices, and may subsequently be reduced to three grains. The diet should be light; stimulants are not required, except in special circumstances, and fatigue should be avoided. The bowels must be kept open slightly. Persistent return of fever will need larger doses of quinine, or arsenic; complications, cerebral, thoracic, or abdominal, require appropriate treatment. In remittent fever the same preliminary measures, with (if the fever be high) cold affusions or sponging. Effervescing draughts and ice if there be vomiting, fomentations or leeches if pain in region of liver and spleen. When remission occurs, *generally in the morning*, a full dose of quinine, ten or fifteen grains, should be given, but if the stomach be intolerant it must be given by hypodermic injection or enema. When the fever becomes adynamic, typhoidal and continued, or when remissions are absent or transient, quinine must be given in all stages. Nourishment and stimulants are to be carefully administered. Change of climate should be enjoined as soon as the strength is sufficiently re-established. As a rule,

large doses of quinine (twenty to thirty grains) are not desirable. Sometimes it fails, or in rare cases seems rather to do harm than good; much perhaps depends on the preliminary relief of the portal congestion. In adynamic and pernicious fevers it is important to bring the patient rapidly under the influence of quinine. Calomel is not required, except as an occasional dose combined with colocynth, the essential principles being to keep the bowels open (not purged), relieve visceral engorgement, reduce temperature, and neutralise the action of the poison. In the pernicious attacks the quinine must be combined with alcoholic stimulants and warmth; in the cold stage, with opium. When the comatose condition occurs in the hot stage, ice to the head, revulsives, stimulant enemata, containing quinine, or leeches to the mastoid process may be useful. The mixed alkaloids, now largely prepared from cinchona, have been found efficacious, but liable to cause nausea, and, though economically advantageous, they are not superior to the sulphate. Quinetum, which is far from unpleasant in its effects, takes longer to act than quinine, and is more suitable for chronic cases. Arsenic sometimes succeeds where quinine fails, and is especially valuable in cases of chronic malarial poisoning. Opium has antiperiodic powers, and it might be beneficial in the cold and sweating stages, but many other remedies are superior to it as febrifuges. Of other remedies, all of which are inferior to the cinchona alkaloids, may be mentioned biberine, salicin, strychnine, atees (aconitum heterophyllum), gelseminum, piperine, ilicin, bonduc nut (fruit of Cæsalpina bonduchi), salts of iron, zinc, picric acid, the mineral acids, hyposulphites, alcohol, and a variety of simple native drugs. These or some of these may be of service, especially iron, in certain stages of the fever or the subsequent cachexia. Warburg's tincture possesses febrifuge and diaphoretic effects, but it is not to be preferred to quinine. In the treatment of malarial cachexia the first and most important is change of climate, and the judicious use of preparations of iron and quinine, and due attention to the state of the portal system; a carefully regulated nourishing diet, and protection from all vicissitudes of climate. Much benefit may be derived from the salines and ferruginous waters of Germany. The local application of red iodide of mercury ointment is often successful in rapidly reducing the spleen. Lastly, in advanced splenic cachexia the patient should be very careful not to overexert himself; the easily excited heart is provoked at once into over-action, and the result may be rapid dissolution, with all the symptoms of pulmonary artery plugging. The last case in which this was forcibly impressed on my attention was in that of a young Englishman, who returned from India in a profound state of cachexia—the spleen itself descending nearly to the ilium. In this patient all the symptoms of anæmia were present in the most advanced condition. Under the influence of quinine, iron, and nourishment, he was improving, and there was hope of further progress. One day, in spite of warnings to the contrary, he rose, walked to the window, and tried to raise it. He got back to bed exhausted and breathless, and died in a few hours.

NORTH-WESTERN ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.—The monthly meeting of this Association was held on Friday, the 10th inst., at Manchester, Dr. T. G. Kenyon (Chester), president, in the chair. A letter had been received from the Local Government Board, in reply to one from the Association with reference to the statistical tables for the classification of diseases, births, and deaths, stating that the matter should receive full consideration. Dr. Fox (Mid-Cheshire) read a paper on the Warrant and Scope of Hospitals for Infectious Diseases for the Reception of Persons not of the Pauper Class.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The Library of the College will be closed on the following days in March and April, for the purposes of the College Examinations—viz., Friday next, the 31st inst.; Friday and Saturday, the 14th and 15th; and Friday, the 21st April.

AT the sixty-eighth annual general Court of Governors of the Royal Hospital for Diseases of the Chest, it was announced that a site had been obtained for the contemplated new buildings, but that £1000 only of the needed £10,000 had as yet been subscribed.

Gulstonian Lectures
ON
PULMONARY CAVITIES; THEIR ORIGIN, GROWTH, AND REPAIR.

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LECTURE II.—PART I.

MR. PRESIDENT, FELLOWS, AND GENTLEMEN,—Among the varieties of pulmonary consumption enumerated in my last lecture, there is one which in its history differs so widely from the rest that I have ventured to isolate its description from that of other forms. Whereas in the ordinary cases the earliest symptoms are trivial, and it is almost impossible to trace with accuracy the beginning of phthisis, in this variety the transition from health to disease is indicated by a striking landmark, never overlooked by the patient or the physician. The causal relation, implied in the phrase "phthisis ab hæmoptoë," had been accepted, from the days of Hippocrates down to modern times, as a self-evident truth, even more than as a dogma. It may be taken as no small proof of the scepticism of the nineteenth century that Niemeyer's reassertion of so venerable a statement should have called forth so much astonishment and so strong an opposition. To what extent Laennec's teachings may have assisted towards this effect of novelty I will not attempt to discuss. His assumption of a tuberculosis preceding and causing hæmoptysis,[1] reasserted with less reserve by some of his followers, remains to this day unproved, although the *onus probandi* rests with his rather than with the more ancient doctrine.

Daily experience teaches us that hæmorrhage forms no essential part of consumption, neither does phthisis invariably follow upon hæmoptysis. Of this we are reminded by Niemeyer's first proposition, "abundant bronchial hæmorrhage occurs very frequently, it is admittted, in such persons, who are neither consumptive at the time of hæmorrhage nor become so afterwards."[2] Could there be any clearer proof that in a large number of cases tuberculosis is not the prime factor in pulmonary consumption? On the other hand, the time-honoured tenet "phthisis ab hæmoptoë" was not adopted by Niemeyer without an important modification. According to him catarrhal pneumonia forms a necessary link between the hæmorrhage and the phthisis.

To Dr. Reginald E. Thompson belongs the credit of having taken up the subject at this point, and vigorously pushed forward its analytical study. Some of his conclusions so immediately concern the etiology of cavities that they claim our attention. But for a full account of his interesting views on the subject of hæmoptysis, I must refer you to his original paper in vol. lxi. of the Medical and Chirurgical Society's Transactions, "On the Pathological Traces of Pulmonary Hæmorrhage," and to his work on "The Causes and Results of Pulmonary Hæmorrhage."

The term hæmorrhagic phthisis, so frequently used by clinical observers, is not free from the reproach of ambiguity. Hæmoptysis, even of the recurrent type, occurs from three very different causes: (1) as the result of confirmed phthisis; (2) as an early complication of the congestive forms of the disease; and (3) as an event not dependent upon pre-existing phthisis, but capable of producing the latter. The results in the three cases are equally divergent. The first variety of hæmoptysis, so commonly due to pulmonary aneurism, usually terminates in fatal hæmorrhage. The second, supervening in the midst of a pneumonic phthisis, almost invariably leads to serious exacerbations and to rapid breaking down. There can be little doubt that the third variety comprises the strictly hæmoptoic forms. According to Dr. Reginald E. Thompson hæmophilia bears the

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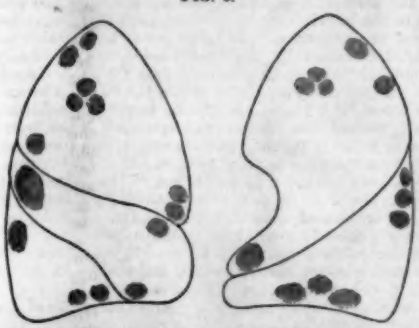
[1] See Traité de l'Auscultation médiate, vol. i., p. 646.
[2] Clinical Lectures on Pulmonary Consumption, Sydenham Society's Translation, page 38.

responsibility of the hæmorrhage in a majority of these cases, and, if I understand him rightly, phthisis and excavation are events subsequent to the local disablement of the lung by the products of hæmorrhage. The stagnation of the residues of hæmoptysis had been mentioned by Morton and Hoffmann, and Niemeyer had described their infiltration in the alveoli as a factor in catarrhal pneumonia. But Dr. Reginald E. Thompson was the first to emphasise that the worst results are apt to ensue not so much in the vicinity of, as at a distance from, the seat of the hæmorrhage, and in localities which are almost constant. These localities are roughly depicted in the annexed diagram according to Dr. Thompson's description. In

FIG. 1.



Usual situations of "hæmorrhagic deposits" (according to Dr. R. E. Thompson).

profuse hæmoptysis a single expiration is insufficient to empty the air passages, and the deep inspiration which follows draws into the bronchi a quantity of blood which fills some of the lobules. Once in possession of the alveoli, the blood escapes the *vis a tergo* of expiration, and every expiratory effort results in a deeper impaction of the clot. This blood, according to Dr. Thompson, never leaves the lung unless it be coughed up once more in the process of excavation.

It would carry me too far to attempt any detailed description of the resulting *hæmorrhagic nodules*, of their aspect, of their constitution, and of the puckering and pigmentation which they occasion. My present inquiry more specially concerns the subsequent fate of the nodules. The excavation to which they frequently give rise is slow to be established, but is rapidly carried through. In this double peculiarity is found a satisfactory explanation for the clinical events. It was long since noted by Niemeyer that after hæmoptysis tissue destruction and flattening of the chest were often detected at an early period; but he likewise admitted that blood-residues might, under favourable circumstances, never lead to excavation. This tolerance of the lung for solid residues of fibrin is a proof, according to Dr. R. E. Thompson, of the non-irritating quality of the blood, and the absence, within the nodules, of degeneration is due to the plug of fibrin, which extends for some distance up the bronchus, effectually protecting the bulk of the deposit from contact with the air. Spontaneous breaking down occurs in the nodule whenever the septic matter was originally mixed with the impacted blood, hence the disastrous effects of hæmoptysis in an incipient catarrhal pneumonia, especially if already softening. The blood inhaled under these circumstances leads to more of pneumonia and to less of consolidating fibrosis than would have resulted in healthy tissue, and the masses are from the first marked out for disintegration. More usually the softening is secondary to the dislodgment, or to the absorption of the protecting plug, or else to the progress of ulceration from a neighbouring cavity. In the more fortunate cases the nodule, as elsewhere described, softens within its membranes; its contents may be coughed up, and the resulting vomica may undergo contraction. The stiffness, pigmentation, and the puckering of the limiting layer, which often sends out fine radiating striæ into the surrounding spongy tissue, for a long time indicate the mode of origin of these excavations.

At the time when excavation overtakes the deposit the process of fibrosis is usually an accomplished event. As long as it remains confined within the limits of the capsule the destructive process excites in the lung neither irritation nor reaction, but should the membrane, as too often happens, give way, the surrounding tissue, taken as it were by surprise, can offer no obstacle to a spread of irritative pneumonia far beyond the limits of the original hæmorrhagic infiltration.

Should the nodule be seated at the periphery, the same insidious ulceration may attack the pleura. I believe this event to be a common cause of pneumothorax; and it should be noted that the posterior axillary region where perforation of the lung so frequently takes place is also one of the situations pointed out by Dr. R. E. Thompson as most obnoxious to the inhalation of blood in hæmoptysis. The sternal region, which is especially liable to blood nodules, is rarely the seat of perforating ulceration. I have observed, however, an instance in which perforation resulted in this situation, and in another case, softening of a blood nodule at the base was followed by the same event.

Cases in which hæmoptysis is followed by extensive and rapid softening probably possess a constitutional bias, which intensifies the mechanical results which I have attempted to describe. They supplied Laennec and his followers with a plausible argument in favour of a tuberculosis anterior to the hæmorrhage; but precisely in these cases I have observed relatively more of pneumonia than of tubercle, and their later history has closely resembled the march of ordinary pneumonic phthisis.

Tuberculosis, on the other hand, is the common mode of termination in those cases where hæmorrhage leads to chiefly local damage, just as it is the most frequent termination of other forms of chronic excavation. The constitutional element of phthisis is almost absent from their primary stages; the pulmonary changes which they suffer as the mechanical result of hæmoptysis are changes characteristic of healthy lung-tissue. With the recurrence of hæmorrhage the lung becomes more and more disabled, and consumption may be finally established. But there is much in the earlier progress of the disease which is capable of a mechanical explanation; and in a great measure the phthisis may be viewed as incidental to the results of hæmoptysis.

With these cursory remarks I close the subject of the etiology of excavation, and I would invite you next to a study of the anatomical characters and of the functional peculiarities of pulmonary cavities.

The *shape* of vomicæ is generally given by the mode of their formation. They originate in deposits, which being usually peripheral and situated around a bronchial termination as a centre, impart to the softening roughly a spherical outline. But their ultimate contour is governed by a variety of circumstances, especially by the extension of the inflammation in one or other direction, and by the coalescence of outlying groups. This fortuitous element renders it impossible to point to any special variety in shape as being absolutely typical of cavities, and we cannot apply literally to them the statement of Rindfleisch, "that every space acted upon by uniform forces, either from within or from without, tends to a spherical shape." Unassailable as a mechanical principle, this proposition is scarcely appropriate in the case of pulmonary vomicæ. Even in their later stages, when the contraction which I shall have occasion to describe approximates their internal surfaces, the forces acting upon various points of their circumference are usually unequal. Pleural adhesions are a source of irregular traction. The persistence of bronchial connexions favours shrinking in definite lines, and the influence of outlying consolidations further disturbs the even pressure of the spongy tissue by which they are surrounded.

A very different view of the shape of cavities is implied in Gerhardt's attempt to determine during life the longest diameter of a cavity by means of Helmholtz's resonators. This method might have led to better results, did cavities usually possess a simple outline and a smooth internal surface. Such is far from being the rule. Cavities are often traversed by trabeculæ, and they are commonly provided with irregular prolongations which explain the failure of Gerhardt's ingenious device. A safer guide is to be found in a combination of the ordinary methods of auscultation with a careful regard to the anatomical relations and to the average shape of cavities as observed after death.

Whilst admitting the great uncertainty of the shape of cavities, I am led to believe that in definite districts of the lung excavation roughly tends to assume definite develop-

ment. Nowhere is this more apparent than in the pectoral region. Superficial cavities in this situation if of sufficient size invariably acquire a flattened condition in harmony with the bronchial distribution. Cavities at the apex proper are ovoid or roundish; in the mid-dorsal region they are habitually spherical. But in all situations whenever excavation increases largely, it tends more and more to assume the ultimate dimensions of the lobe affected.

More important than the inquiry into the shape of cavities is a determination of their *size*. When cavities approach the surface this determination can be effected without much error, but it is rendered uncertain by the presence of an intervening layer of lung tissue whether spongy or consolidated. In the first case the cavernous sounds are imperfectly transmitted, in the second they are apt to be conducted beyond the excavated region. Thus it frequently happens that the cavity diagnosed is larger than the cavity discovered after death. On the other hand, cavities may be, and often are, underrated by the ear, putting aside the comparatively rare cases in which their detection is rendered impossible, owing to the occlusion of the corresponding bronchus. Our estimate of the size of vomicæ is further unsettled by the presence of trabeculæ and of secretions which restrict the area of sound-production or impair the sonorous vibrations.

It is no part of my present duty to point out the elements of a correct clinical diagnosis; my object was simply to call attention to the great assistance which our practical conclusions would receive from a more accurate knowledge of the anatomical varieties of excavation.

It is customary in describing cavities to allude to the *trabeculæ* which they so often contain. The absence of trabeculæ in cavities of recent date point to their having been produced from an extensive pneumonia or from some equally destructive congestion affecting the whole area of excavation. In chronic cavities the removal of trabeculæ is effected by a slow superficial necrosis which I have described as never absent from the internal surface of cavities; it is hastened by all those circumstances which promote the necrotic process, and especially by maceration. As an instance of this last influence I would point to the excavations situated at the posterior part of the upper lobe and in the mid-dorsal region, where, owing to the supine posture, fluid secretions are apt to be retained for long periods.

Anatomical peculiarities are in favour of a more extensive and of a more persistent trabeculation at the pectoral region than at other parts. In this situation, behind a tolerably shallow layer of spongy tissue, the main bronchial ramifications form a pes anserinus of considerable strength, and the larger divisions of the bloodvessels contribute greatly to the resisting power of the district. Thus the cavities in the pectoral region would be mainly trabecular, the normal type at the apex proper, and especially at the posterior apex, where the bronchial and vascular supply is terminal, mainly the non-trabecular form.

In size and in aspect trabeculæ differ widely. They may form bands of substantial thickness or mere cylindrical cords; and they are liable to present every degree of ulceration; but they all agree in possessing a lining similar to that belonging to the cavity. Their destruction usually proceeds with the greatest activity at the point furthest removed from their attachments, and when disruption has finally occurred the divided stumps gradually waste and disappear. The sudden rupture of a trabecula under the influence of strain is probably of less uncommon occurrence than is generally suspected. Dr. Douglas Powell narrates a case of this nature in which the physical signs enabled him to recognise during life this event, which was subsequently confirmed by the autopsy.

The exact nature of trabeculæ has been the subject of some divergence of opinion even among competent observers, a circumstance which I am at a loss to understand. By some the vascular nature of trabeculæ is upheld, and it cannot be denied that bloodvessels often constitute the only bond of connexion between the opposite parietes of a large cavity. This is, indeed, the usual appearance presented by completed excavations, due to caseous pneumonia. But the smooth surface, the tough yellowish aspect closely resembling in colour and in consistence the fibro-elastic coat of a large artery, and the mode of branching special to the bloodvessels, constitute so many unmistakable features, which render impossible a confusion between the latter and trabeculæ proper.

Trabeculæ have too often been stated to consist of bronchial tubes. From a large number of observations I am able to affirm that patent bronchi very rarely, if ever, enter into their composition. I cannot recall more than one instance of a bronchus traversing a cavity of some magnitude, and even in this case the tube was the seat of incipient ulceration. With Dr. D. J. Hamilton's opinion that trabeculæ are the remains of interlobular septa I can partially agree. I am familiar with a form of pulmonary liquefaction in which the lobules are completely dissected; here neither tubercular fibrosis nor inflammatory thickening of the tissue obscures the simplicity of the pathological process, which is one of moist necrosis. The remarkable honeycombed condition which results is, however, far from being typical of what is usually understood by a trabeculated excavation.

In the formation of the ordinary trabeculæ the fibrous tissue of the interlobular septum undoubtedly constitutes an element of resistance. But the position of trabeculæ is mainly determined by the bloodvessels, and especially by the bronchial tubes. As pointed out by Dr. D. J. Hamilton, trabeculæ commonly are inserted into the side of a bronchus. If the bronchial tube, which appears to enter a trabecula, be carefully probed, the instrument introduced at the bronchus cannot be made to pervade the trabecula, but issues immediately in a direction parallel to it, clearly showing that the tube has been gutted. In earlier stages the bronchial tube presents a series of fenestrations in which we readily recognise the orifices of ulcerated bronchioles. The larger air-tubes are gradually overtaken by the same ulceration, but the peri-bronchial sheath, with its vessels, remains an important constituent of the trabecula, and assists in no small degree in its conversion into fibroid tissue.

I have placed before you drawings and diagrams of trabeculæ, both in longitudinal and in transverse section, demonstrating the partly alveolar nature of their structure. The sections exhibit the following component parts:—(1) Bloodvessels usually contracted and thickened, and occasionally obliterated. (2) A layer of spongy substance, always much collapsed. (3) Fibrous elements, such as normally belong to the peri-bronchial sheath. (4) A false membrane, analogous to that which lines the cavities. If I understand rightly the mechanism of the formation of trabeculæ, the latter are but bridges of pulmonary tissue, which originally separated distinct cavities, and had escaped the influence of the disease until deprived of their air supply by the laying open of their bronchi. The collapse of the alveolar tissue and its transformation into a compact layer tightly fitted around a branch of the pulmonary artery as an axis, are nothing more than late consequences of the bronchial ulceration. New vessels, often of considerable size, are abundantly developed in connexion with inflammatory changes in the trabeculæ, but of the original structures the only one preserving functional activity is the artery. In this fact consists one of the chief uses as well as one of the main dangers special to trabeculæ. The trabecula remains for a considerable time the chief source of nutrition for the segment of lung tissue into which it is inserted. As long as blood flows to the periphery through the trabecular artery some risk of hæmorrhage may be said to exist. But, practically speaking, bleeding very seldom occurs from these vessels, which are well protected by a layer of collapsed alveoli until finally obliterated. Aneurism is remarkably more frequent in arteries of the wall than in those crossing the cavities. Sooner or later the lumen of the trabecular vessels lessens in proportion to the contraction and to the thickening of their walls, and finally disappears.

In their ultimate shape trabeculæ may be said to consist largely of elastic elements—namely, collapsed alveoli and vascular membranes. The importance of this fact will become apparent when I describe the mechanism of the contraction of cavities, and will afford some excuse for the development which I have given to this part of my subject.

Concerning the *bloodvessels* which traverse cavities, I need add but little to what I have incidentally stated. In the moister varieties of phthisis the bronchial and pulmonary divisions are carried away with the general softening, but where fibroid change is active they survive for a time and partake in the fibrosis. Of this we have seen a striking instance in caseous pneumonia. In transverse sections of trabeculæ it is often possible to recognise the bloodvessels belonging to various systems. In the drawings and in the diagrams, which I owe to the skill of Mr. Arthur Grayling, House-Surgeon to the Belgrave Hospital for Children, you will notice, in addition to numerous thin-walled and distended vessels of new formation, a

central cluster of large bloodvessels undergoing degenerative thickening. The pulmonary artery, the pulmonary veins, and a branch of the bronchial artery, all come into view, and in this instance the trabecula contains in addition, by the side of a lymphatic duct, a smaller bronchial tube completely obliterated by cell growth. Among these vessels it will suffice for the present specially to consider the most important—the pulmonary artery.

When finally laid bare by gradual removal of the condensed spongy tissue, the surface of the artery becomes an excellent indicator of the slow destruction which incessantly proceeds within cavities. This secondary ulceration of the bloodvessels constitutes the real danger of haemorrhage. It was pointed out by Dr. Douglas Powell, in his book on Consumption (second edition, 1878, page 74), that the fibrotic cavities of old standing are most likely to develop aneurism, and that aneurism is more especially found on the exposed sides of vessels which are partly buried in indurated tissues. I have often verified the correctness of this observation. For the fact itself the following appears to me to be a satisfactory explanation. Owing to their persistent connexion with living lung substance the flow of blood within the vessels in question suffers no diminution; but inasmuch as in the segments of their wall, which is sunk in fibrous structures, absolute rigidity has taken the place of the elasticity natural to vascular membranes, the blood-pressure is entirely thrown upon the exposed segments, which are ill-nourished and weak. The tendency to bulging once established, becomes progressive. If the cavity be small its limits may be reached by the vascular membrane, and the danger of rupture averted. The cavity then becomes a blood-space, in which opportunities are afforded for coagulation. Obliteration of an aneurism may also ensue, as originally pointed out by Rokitansky, even after its rupture, from the lateral pressure of the blood effused into the cavity, provided the bronchial orifice be temporarily obstructed, or naturally so small as to be unable to allow the blood to escape before the occurrence of coagulation. Most usually the cavities are too large to render possible either of these events, and after repeated premonitory haemorrhages, the final burst occurs with irresistible force.

A description of those vessels which do not traverse the cavity, but are distributed to its walls, must be deferred until my next lecture, and I will pass at once to the consideration of the relations of *bronchi* to vomicæ. As long as the excavation is lobular the conditions are simple, the vomicæ is terminal to a single bronchiole. This lobular stage is extremely transient; in most cases the destruction attacks from the first, or in rapid succession, several groups of lobules, and the good-sized trabeculated cavity which results intersects the path of numerous air-tubes.

It may be accepted as an invariable rule that all non-cartilaginous bronchi are destroyed at an early date of the excavation, but the same fate sooner or later awaits the larger branches. The difference in the resisting power of the two sets of bronchi may be plainly seen in cavities which occur in the mammary region, near the root of the lung. The larger bronchial divisions, which commonly project into the cavities, are cleared of all their smaller branches, and in this denuded state they closely resemble the heavier roots of a tree torn up from the soil.

The mechanism of the destruction of the bronchi throws much light on the pathology of the pulmonary changes. Let us follow the course of an ordinary bronchus of the third order passing through an early excavation. The bronchioles formerly distributed to the excavating region are represented by simple perforations resembling the holes in a surgical drainage-tube. These perforations impair the air-conducting function from the first; but, gradually enlarging at the expense of the bronchial wall, they lead to its ultimate destruction. Inasmuch as the proximal perforation, that nearest the trachea, is swept by a more powerful draught, it is apt to suffer earlier and more severely than the more distal perforations, which are not reached by the air-currents until the latter are attenuated by the first leakage; it follows that a bronchus will give way at a point in the cavity nearest the root of the lung; and this in reality happens with great regularity. The ultimate removal of the remains of the bronchial tube is merely a matter of time. As the cavities acquire extension, the same process is repeated in the case of bronchi of a higher order until the presence of strong cartilages delays for a while the advance of the ulceration. The stumps of the larger bronchi, when denuded, usually present a terminal perforation which acts much in the capacity of the eye of a catheter; but here also the ulceration of the orifice of a bronchiole ultimately taps the tube at the level of the cavity wall.

The foregoing remarks explain the oft-quoted experiment of M. de Castelnau, who, by injecting water through the trachea, demonstrated the multiplicity of the orifices leading into cavities. With the progress of excavation this multiplicity tends to lessen; every successive ulceration cutting off a fresh bronchial set, until ultimately the cavity may empty itself into the lobar bronchus.

The completeness with which the cavity may be drained greatly depends not only upon the position but upon the size of the bronchial orifice. I have often found the aperture of outlet to be out of all proportion with the size of the vomica, fibrosis and contraction having taken place in the peri-bronchial sheath. Where two or more large bronchial divisions terminate in the same cavity this contraction is invariably more advanced in the upper branches, which have comparatively little work to perform. In the contraction of the bronchial orifices we find an explanation for the great difficulty attending the expectoration of the contents of very chronic vomicæ; the patients are struggling with mechanical disadvantages which no medical treatment can wholly remove.

The changes which I have described as occurring at the proximal side of cavities proceed likewise, although less rapidly, at its distal aspect. As a late result the fibrosis extending from the cavity wall and the cell proliferation, special to the mucous membrane, lead to an ultimate obliteration of all air-tubes not actually in use; but during the interval which precedes this occlusion the distal segments of numerous smaller bronchi take their origin, as it were, from the cavity, any air they may obtain being derived from the vomica, and contaminated with its impurities. This is a fertile source of a secondary infection for the surrounding spongy tissue. More favourable in this respect are the cases where the interruption of the bronchial air-current has led to a collapse of the corresponding respiratory district. Excavation, in this instance, puts a stop to its own progress by surrounding itself with a zone of compressed tissue, more prone to fibrosis than to inflammation.

The *contents* of vomicæ possess for the physician considerable practical interest. In the early stages of cavities it is usual to find within them structural traces of the tissues whose removal has led to excavation, sodden epithelia, fibrous and elastic tissue fragments, and the products of simple and of tubercular inflammation mixed with a large proportion of mucus, all in various degrees of degeneration. If the softening be of the moist type, the débris will be shed into the vomica very gradually, and it will be difficult to find either in the sputum or, after death, in the cavern any recognisable masses of pulmonary texture. Louis, however, has recorded the discovery within a vomica of a piece of spongy tissue; and more recently, in a case of pulmonary gummata, masses of pulmonary tissue invaded by syphilitic cell-growth were repeatedly recognised in the sputum by Cube. But in caseous pneumonia, in gangrene, and in catarrhal softening the rule is for sphaceli to become detached and expectorated. The heavy blocks which occasionally are loosened in caseous pneumonia from the undermined cavity-wall constitute a tolerably common post-mortem object. During life their size may prevent their removal through the bronchi, but they are placed in a favourable position for rapid dismemberment, and their smaller fragments are readily expectorated. More or less suppuration always accompanies the discharge of the products of disintegration, and persists for a time in the fully cleared vomica; but sooner or later the pyogenic energy of the internal surface becomes exhausted. The patches of bronchial membrane by which mucus was secreted gradually becomes absorbed, and secretions, if present, are more watery. Hence it has been correctly observed by Lebert that the older a cavity the more fluid are its contents.

In proportion as the walls of the cavity become rigid from fibrosis and the bronchial orifice less patent, the secretion is with greater difficulty expelled; that the latter should become somewhat offensive is nothing more than we would expect. More habitually, however, we are astonished to find that septic decomposition is almost entirely absent from the contents of vomicæ in phthisis. Perhaps the free air-currents set up by periodical expectoration, even in cavities which, from the rigidity of their walls, possess but a sluggish respiratory traffic, may have the effect of washing the effete products, and of supplying more oxygen than is favourable

to the growth of micro-organisms. As a broad fact it may be stated that the contents are preserved from putrefaction in proportion to their free communication with the outer air. This, however, should be understood to apply strictly to phthisical excavations. Both in bronchiectasis and in gangrene decomposition is a characteristic feature; in both oxygen exerts its influence upon organic matter of complex chemical constitution in the presence of abundant moisture. In gangrene the decomposition may receive a natural termination in the removal of the offending matter. In bronchiectasis, on the other hand, fresh papulum is perpetually added to the decomposing mass, which largely consists of mucin—a substance, in its moist form, unusually prone to decay. Hence the mucous fermentation and the acid reaction often present in bronchiectatic sputa, which in this respect contrast with the ammoniacal decomposition special to gangrene. Phthisical cavities are almost as free from the one as from the other form of decomposition. Mucus is only secreted in minimal quantities by the surviving shreds of mucous membrane, and true gangrenous action is entirely absent; chemical metamorphosis has taken place in the comparatively dry state at the inner surface of the capsule, and its products, both morphologically and in respect of their chemical constitution, have reached so low a standard as to afford little room for further degeneration. However, the innocuous character of the cavity-contents has its limits. The secretions in chronic phthisis are apt to become offensive in a measure as their expectoration is rendered more difficult, and after death the cavities may be found to contain horribly fetid fluid. This condition I have often noticed in the larger vomicæ of fibro-tubercular lungs, where the walls become rigid and the bronchial orifice is much reduced in size. Whilst fully admitting the influence of stagnation in promoting septic changes in the secretions of phthisis, we must recognise that septic action does not appear spontaneously to originate within cavities, but is usually dependent upon some infection introduced from without.

EXTENSION IN THE TREATMENT OF CLUB-FOOT.

BY F. R. FISHER, F.R.C.S.

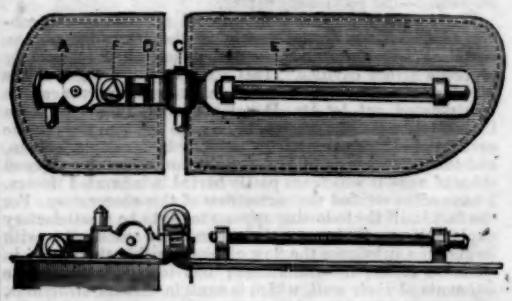
THE employment of extension has long been recognised as a necessary and indispensable practice in the treatment of fractured bones and diseased joints of the extremities. It is somewhat singular that this same force should not have been used in the treatment of club-foot, since in the two forms of talipes which are of most frequent occurrence —talipes equinus and talipes equino-varus—the foot presents a marked condition of structural shortening with contracted tissues. I have for some time been of opinion that the persistent application of extending force is of great value in assisting to reduce these distortions of the foot, and have carried out this principle of treatment by having the foot stretched by manipulation, and by, when applying the Scarpa's shoe, first fixing the heel and then drawing the fore-part of the foot well forward on the shoe-plate.

To more effectually obtain a condition of constant extension I have employed a shoe of a modified pattern, the construction of which is shown in the accompanying drawings of the under-surface of the foot-piece (Fig. 1). The sole-plate of the instrument is divided at a point corresponding to the transverse tarsal joint (the astragalo-scaphoid and calcaneo-cuboid articulations) of the foot, and is supplied with rack and pinion movements at A, F, and C, which respectively permit of the front plate being moved laterally, raised, and rotated upon the heel-plate. To this instrument, which is well known as the Adams' shoe, the power of extension has been added by means of the long screw, E, on turning which the front plate slides forward, drawing the fore-part of the foot with it, and extending it upon the heel, which is firmly fixed in the back part of the shoe. This instrument I have now used for about three years in the treatment of talipes equinus and talipes equino-varus, and I believe I may claim for it that, by means of the extension it affords, the distortion of the foot is more readily reduced and the duration of treatment necessarily shortened.

The two following cases of talipes equinus were recently under my care in the National Orthopædic Hospital, and were treated with the extension instrument.

Case 1 was a man, aged twenty-four, who had suffered in childhood from infantile paralysis, which was the original

FIG. 1.



cause of the deformity. Fig. 2, a drawing from a cast of the foot, shows the nature of the distortion at the time of his admission to the hospital. The foot, which was much shortened and contracted in the sole and with a raised instep, was very rigid and firmly set in its abnormal condition. The plantar fascia was freely divided on Feb. 3rd, 1881, on the 7th the extension-shoe was applied, and on March 9th the sole was in very good position. By the end of March the distortion of the foot was completely overcome. There was also present in this case some contraction of the tendo Achillis, which prevented the foot being flexed beyond a right angle on the leg. For reasons which I need not enter upon here, being foreign to the subject, it was deemed

FIG. 2.

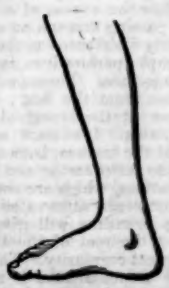
FIG. 3.

advisable not to have recourse to tenotomy, but to adopt the more prolonged method of overcoming the contraction of this tendon by means of manipulation and other exercises. The case was completed on June 8th, and the condition of the foot when the patient left the hospital is shown in Fig. 3, which is drawn from a photograph.

Case 2 is that of a youth, aged sixteen, also suffering from paralytic equinus of the right foot. The deformity was first noticed when he was four years of age, and at the commencement of treatment the foot presented the appearance shown in Fig. 4. This drawing, I must explain, is

FIG. 4.

FIG. 5.



from an outline taken of the foot, and should have been reversed, as it gives the appearance of a left instead of a right foot. The arch of the foot was considerably heightened, the measurement at the line A being nearly two inches, the instep was raised, and the foot much shortened. On July 6th

last, I divided the plantar fascia. The extension instrument was applied after four days, and mechanical treatment proceeded with, supplemented by section of the extensor proprius pollicis tendon. On Aug. 3rd, after two months' treatment, the deformity of the foot itself was completely reduced. In this case, again, there was contraction of the tendo Achillis, which was treated by exercises. Fig. 5 shows the condition of the foot after treatment, and is taken from a photograph.

These two cases fairly illustrate the condition of deformity in which extension will be found of value. I have not given a case of equino-varus, because I have not one at present available for illustration; this is, however, of little moment, for in this form of club-foot the extension-shoe is not required until the inversion of the foot has been overcome by the use of an outside splint—i.e., until the varus has been reduced and the case converted into one of equinus; at this stage of the treatment I have used the shoe with advantage in several cases of equino-varus. In using the instrument it must first be adapted to the condition of deformity by means of the racks in the sole-plate; it is then applied to the limb, and the fore-part of the foot drawn forwards by turning the extension-screw. No pain must be given by the power exercised, the patient is directly conscious of the stretching obtained, and feels the foot give at the transverse tarsal joint. He will be able to guide the surgeon in deciding how much extension it is desirable to use; having reached this limit, the foot is placed in an improved position by readjustment of the sole-plate by means of the racks. The objection may be made that this addition still further complicates the machinery of the instrument, but I believe that in practice the use of the instrument will be found very simple if the plan I have advised is followed—viz., to extend first and adjust afterwards.

In bringing forward this method of treating club-foot, I must call attention to the fact that Dr. Shaffer has also used extension, and about two years ago published a description of the instrument he employs in an American journal, the *Medical Record*. The instrument I have illustrated is entirely different in construction from that invented by Dr. Shaffer, as the shoe he devised could only be used for slight cases, the plates being level and not capable of adjustment to severe deformity. My investigations on the subject were carried on before I was aware of Dr. Shaffer's efforts in the same direction; but to the distinguished American surgeon is due the credit for first bringing before the profession the value of extension force in the treatment of club-foot.

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ON TRICUSPID INCOMPETENCY.

BY BEDFORD FENWICK, M.D., M.R.C.P.

IT is a matter much to be regretted that so little attention has hitherto been paid to the right side of the heart. Because it is comparatively seldom affected as compared with its fellow, it has been much ignored. And a very natural result has ensued from this neglect. Not only is our knowledge small, but I venture to believe that much of that is incorrect. In a former communication on Tricuspid Stenosis[1] I endeavoured to show, and, I hope, succeeded in proving, the fallacy of the old and cherished dictum that the affection was always congenital. With reference now to the same valves, much exaggeration I fear has been used in discussing their incompetence. One school, headed by Wilkinson King and Adams, taught what they termed "the safety-valve function," or, in other words, that the tricuspid valves were so constructed as to allow regurgitation when any serious obstruction existed to the cardiac current in front of them. Another school contemned this as mythical, and apparently believed that the three valves were placed there in order to furnish additional strength and resistance to any backward pressure. Hardly anyone, as far as I can discover, has hitherto written upon the subject as a practical physician. Believing as I do that a more intimate knowledge of the tricuspid valves will furnish a clue to much obscure cardiac pathology, I would now offer some new, and, I hope, practical views on the above question.

Tricuspid incompetency may be either primary or secondary. For the present I must dismiss the latter in a few words. Secondary or indirect or relative incompetency may arise from: (1) The dilatation of the right ventricle in consequence of (*a*) stenosis of the pulmonary orifice or obstruction of the pulmonary arteries; (*b*) various diseases of the lungs, especially cirrhosis and atrophous emphysema; (*c*) disease of the left side of the heart; (*d*) fatty degeneration from coronary disease or any other cause. (2) The rupture of one or more chordæ tendineæ.

Such, in short, are the principal causes. We have not, I find, sufficiently accurate data from which to draw any broad deductions; for the innate difficulties of the subject will be at once admitted by all who glance over the above condensed list—the extreme difficulty, for example, of proving on post-mortem examination with absolute certainty that supple healthy valves which, now entangled in blood-clot, perhaps admit of free regurgitation, were unable under the vastly altered conditions of life to close perfectly and completely the orifice they guard. I, for one, believe with Wilkinson King that normally there is always a small but certain amount of regurgitation through the tricuspid valves. And if this be so, how increasingly difficult is it to draw an arbitrary line and say, "There health ends, and here disease begins." And, again, if the orifice be found abnormally large, who may say without accurate mathematical proof to the contrary that the valves are not also broader than normal, and therefore still relatively competent? The question bristles with difficulties, doubts, and dogmas, and so I propose to leave it for the present. But it is far different, fortunately, with primary or direct incompetency. Here at least we stand on firm ground. It is caused by disease of the valve structures, resulting in (*a*) puckering or shrinking; (*b*) adhesion of one or more segments to the contiguous wall or walls of the ventricle or to each other (as in stenosis); or (*c*) the formation of a fungoid or polypoid mass dragging down and so incapacitating the part or parts to which it is attached. For it must be manifest to the most unlearned that valves bound or dragged down at right angles to their line of closure cannot by any conceivable compensatory effort close their orifice. It must be evident to the least skilled touch or eye that valves with hardened, thickened, shrunken borders cannot accurately meet each other edge to edge, and that when one or more of these conditions are present insufficiency must result. Now, I think I may say that I have collected most if not all of the cases of this affection noticed in Schmidt's or Virchow's *Jahrbücher* since the beginning of the century. And yet when I came to analyse these, I was disappointed to find that only fifteen were so recorded as to be of any statistical value. I am, however, inclined to regard this as a proof not of the rarity of the disease, but of the rarity with which it is looked for, and the even greater rarity with which, when found, it is considered sufficiently important to carefully detail. If I show, as I hope to be able to do, that this subject is of great practical importance, I sincerely trust that in all future recorded heart cases the condition of the tricuspid valves, and if possible also the circumference of the orifice, may be accurately noted. I will first briefly summarise the main features of these fifteen cases (full references to which will be found in the Pathological Society's Transactions for 1882), show the broad practical deductions fairly deducible from them, and then, shortly, the chief points in diagnosis, prognosis, and treatment of the disease.

1. *Age.*—The average age of the male cases at death was 51 years, of the female 47·4 years. These contrast rather remarkably with the figures which I showed existed in cases of tricuspid stenosis. There we found that the average ages at death were in men 36·4 years, and in women 31 years. I need hardly point out that we require a much larger number of cases here in order to eliminate the very numerous possible sources of error which inevitably exist when merely age is considered; but should further and more extended observations corroborate the above figures, they will not only teach a novel and interesting fact, but I need scarcely say will lead to important conclusions.

2. *Sex.*—Of these fifteen cases, eight were men and seven women—a proportion strikingly different from that found to exist in stenosis, where out of sixty-one cases, no less than fifty-five were females, and only six were males. And this contrast becomes even more remarkable when we consider

3. *The State of the Valves.*—In every one of these eight male cases the valves were unable to close their orifice because they were puckered and shrunken from old disease with hard, often cartilaginous, edges. But in three out of

[1] THE LANCET, April and May, 1881.

the seven female cases a very different condition existed. For in each of these, one or more of the valves were bound down to the contiguous wall or walls of the ventricle; in fact, the same adhesive process had taken place in them which ordinarily causes stenosis by the union of the segments to each other. Therefore in only four women, as against eight men, was the incompetency due to puckering of the valves.

And now, having obtained the facts, I think we can ask some practical questions. What is the cause of this? Why should tricuspid stenosis be so much more frequent in women? Why should puckering of the valves from old disease be more frequent in men? Why should the diseased segments become adherent to the ventricular wall only or chiefly in female cases? I venture to believe that the explanation of each and every one of the above apparent mysteries is perfectly simple and rational also, because it will explain them one and all. I do not think that the German theory of stenosis is simple which endeavours to account for the facts by the assumption that when it occurs it is in consequence of an unusual form of abnormally adhesive inflammation, and it shows not why females, as we now know, should be especially attacked therewith. Nor is the French theory rational, because it holds that the female suffers most from mitral stenosis because of some assumed extra-plasticity of the female blood at the menstrual period, but it explains not why in that case men also suffer from the disease; and furthermore, we do not find that wounds in women heal more rapidly during the menstrual week than in the other three of any given month, as they certainly should if the theory were founded upon solid facts. The solution, which I believe to be the true one, is simply this. According to Bizot the average circumference of the tricuspid orifice is in males 4·76 inches, in females only 4·56 inches, or a difference of one-fifth of an inch between the sexes. But of the mitral opening, the average is in males four inches, and in females 3·99 inches, or the difference of only one-hundredth of an inch. Here therefore we have, it seems to me, in this much greater smallness of the tricuspid orifice in women a *primâ facie* reason for the disproportion of stenosis in the two sexes at the two orifices. For, as I hope to show in a future communication, the difference between the sexes in mitral is not nearly so great as in tricuspid constriction. And, now, how and why does stenosis occur? I contend that it results in the vast majority of cases not, as is still commonly taught, from congenital malformation, or even from intra-uterine disease, but from disease in adult life, and simply and solely from an agglutination of the granulating edges of two opposed and inflamed valves, and this, too, for a purely mechanical reason. I would illustrate my meaning by an example. Let us consider what takes place in any ordinary deep granulating wound on the surface of the body. If the edges be kept in apposition under favourable circumstances, direct union will occur between them. If only a limited amount of rest, however, be obtained, the parts unite from the bottom. But if they be constantly moving, and constantly apart, each side will separately scab over, heal, and contract, and as on the surface, so, I take it, is it with the valves. If they have a necessary amount of rest, Nature will do with them as she does under like conditions anywhere else: the opposed lines of beaded granulations will unite, and stenosis be produced. But if the parts are in constant and considerable separation, each inflamed border will dry up and cicatrise, and direct incompetence will of course ensue. I now contend, therefore, that stenosis is more common in women because in them the life-work is less onerous, the heart action less powerful, the back-pressure therefore slighter, and consequently the valve disturbance less than in men. And then in men the muscle-straining labour, the compensating heart power more violent, and so the comparatively greater *vis a tergo* and valvular action keep the inflamed edges non-adherent till Nature has puckered and shrunken them in her process of cure, and so produced primary incompetency. Common sense, therefore, furnishes a simple mechanical explanation of the facts which I have shown to exist with relation to the sexes. If further proof be needed, it is readily obtainable. In every case of tricuspid stenosis in men we found that acute rheumatism had been suffered from, and so severely or so often as to have disabled at some period the patient from all work, and so have changed for a time the hardworking man into the bedridden invalid, and for that time of course have placed the cardiac action at or below the level of that of any woman. On the other hand, in the female, cases with incompetency the occupations of only two are noted, but these were both intemperate and both hard workers with heavy weights to lift or to carry, one as a fruit-seller, the other as a washerwoman. And so their work, and presumably also their cardiac strain, were probably as great as that of most men. I think I may claim therefore, as I said before, that this novel hypothesis of a purely mechanical cause for stenosis and primary incompetency is simple and satisfactory also because it furnishes a rational explanation of *all* the facts. If it be true—and the more I consider the matter the more am I convinced of its inherent probability—I need scarcely, perhaps, point out its immense practical importance with regard to—

4. *Treatment.*—For, let us take any case suffering from an ordinary *primary* attack of acute endocarditis of the tricuspid, mitral, or aortic valves. I italicise the word primary because, of course, in second or third attacks the damage already sustained would necessarily complicate the result. If stenosis from union of the inflamed valves be the end we are to seek, we must keep the patient at perfect rest till the evidences of acute change have entirely disappeared. If incompetency, however, be thought the more advisable result, we must adopt an exactly opposite course and insist upon some amount of daily exercise. But, to return to our present subject, when tricuspid incompetency is fully established, or its effects so marked as to demand treatment, the indications are evident. The fatal tendency of the disease is to cause dilatation of the right chambers of the heart. Therefore we must quiet and strengthen the cardiac action. By giving digitalis, we tone up the weakened and strained muscular substance; by ammonia and ether we stimulate it. Iron, in some form or other, is usually needed, sooner or later, to maintain the digestive powers. Of course the excretory organs must be carefully watched, and an absolute and never-failing obedience to hygienic laws rigorously insisted on to prevent pulmonary or gastric complications. I do not think that in tricuspid incompetency we obtain such good results from venesection as we find that measure affords when stenosis is present. If, however, there be extreme cyanosis and venous obstruction, one bleeding would probably do no harm, and if about twelve or fifteen ounces were taken would probably relieve; but I am certainly inclined to believe that the repeated small bleedings, which so much benefit cases with stenosis, would do great harm where primary incompetency is alone present. If I might venture to summarise our indications for treatment in the two classes, I would say, and the remark applies to valves other than the tricuspid, when constriction is present diminish the work to be done by the heart—that is to say, keep the quantity of blood to be forced through a comparatively smaller opening, comparatively smaller in amount by venesection, by restricted fluids in the diet, &c. Where regurgitation is predominant increase the power of the auricular contraction; by cardiac and general tonics and stimulants assist it to empty itself, and by the mere advent of hypertrophy stave off the fatal day of dilatation.

5. *Diagnosis.*—In nearly every case there are well-marked symptoms of systemic venous obstruction—cyanosis, œdema, and ascites. When the tricuspid affection is uncombined, as it, however, but rarely is, with disease of the left heart, a systolic murmur may be heard at the ensiform cartilage; there may be violent cardiac action, and yet the pulse at the wrist may be firm and good, and there may be no pulmonary obstruction; and this while the veins of the neck stand out full and hard and the legs and feet are so swollen that the skin cracks. In short, a predominance of systemic over pulmonary venous obstruction is markedly significant of disease of the right heart. In nearly every case a systolic murmur is audible at some period in the tricuspid triangle; but this can be heard higher and more to the right than the bruit which is typical of stenosis. In the great majority of cases the murmur is loudest within two inches of the ensiform cartilage and especially upwards. In nearly every case of primary incompetency the mitral valves are also affected, and, if the patient be a woman, are, it seems, generally in a state of contraction; and, of course, some affection of the left heart is one of the most common causes of secondary insufficiency. Therefore it is apparent that a systolic or a presystolic murmur and thrill at the left apex is a very frequent accompaniment of the systolic bruit audible in the tricuspid triangle. When the case is far advanced turgescence and even pulsation of the jugular veins is very commonly well-marked. If therefore there be cyanosis,

œdema, and other general evidences of great systemic venous obstruction, with enlargement of the right side of the heart, shown by increase of the cardiac-dulness area, and impulse, to the right of the sternum, while the evidences of pulmonary engorgement are comparatively slight or absent altogether, and a systolic murmur be audible in the tricuspid area and distinct from, in tone or time, any other abnormal or cardiac sound, it may fairly be inferred, especially if the history of the patient indicates the etiology, that the tricuspid valves are incompetent to close their orifice. But, finally, and I cannot too strongly insist upon this point, when the ventricular power is very feeble no murmur at all may be audible, and yet an extreme degree of insufficiency be present. And this generally if not invariably occurs in cases where the cardiac force is temporarily or permanently exhausted. In one case a loud murmur was heard till the patient was bled, when it at once disappeared, returning when strength was regained, and again becoming inaudible before death, which rapidly followed another venesection. The natural tendency is to say or, at least, to believe that where the most practised ear can detect no bruit, that there no valvular disease can exist. Many cases followed from the bedside to the post-mortem table have convinced me that this is as great a mistake as it is to believe with the older writers that every murmur at the apex necessarily implies a valvular lesion. I insist upon this point, because it is eminently practical. For it is often and as deeply detrimental to both the practitioner and the patient to overlook valvular disease because no bruit evidences it, as it is to tell a nervous hyper-vascular patient that he has heart disease because, forsooth, a loud systolic murmur is heard at the apex. The only successful way of diagnosing cardiac or any other disease, and the most successful way of treating it, consists mainly in taking a broad view of the patient's general condition, in fact, in grasping the cause by the effect. And so when the cardiac impulse is feeble and its sounds dull, perhaps the first one at the apex almost obliterated, common-sense reflection alone shows that advanced disease of a valve may be present, and yet the molecular friction of a feeble faltering blood current may not be able to produce an audible roughening or replacement of a cardiac sound, which the general state of the patient's pulse or venous system or the pulmonary signs would lead one to look for and expect to find.

6. *Prognosis.*—As to this little need be said here. It is, of course, always grave, in view of possible and probable complications. Excepting these, however, it mainly depends upon the degree of dilatation of the left auricle; the greater this is, of course, the greater the danger; the more compensatory hypertrophy there exists the greater becomes the patient's chance of comfort and of vitality.

West street, Finsbury-circus, E.C.

ON THE RADICAL CURE OF VARICOCELE.

BY REGINALD HARRISON, F.R.C.S.,
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As Mr. Royes Bell has drawn attention to the treatment of varicocele in the course of his Lettsomian lectures, recently published in THE LANCET, I should like to describe a mode of operating which, without prejudice to other procedures, has given me results which have been very satisfactory. It consists in exposing the cord by a vertical incision about an inch in length and separating the veins which are most prominently varicose. These are each tied in two places with a catgut ligature. Usually three or four main veins require to be so dealt with. In addition, it will be observed that there are a number of small veins in plexuses or bundles, especially in close proximity with the epididymis, which cannot be obliterated in this way; these I destroy with a few light touches of the thermo-cautery, taking care, while this is being done, to protect the vas deferens by holding it from behind, between the thumb and index finger of the left hand. The operation is conducted antiseptically. No sutures are introduced, and the wound is left to heal by granulation. I have now been performing this operation for some years, and I am not aware of an instance in which there has been a return of the varicose condition of the veins; the cicatrix which results is of a contractile nature, such as usually follows wounds inflicted by burning, and gives a feeling of firmness to parts which previously were complained of as being unnaturally lax. It is, I am sure, a matter of great importance, in view of preventing a return of the disease, to destroy the small varicose veins, which can only be seen and not felt. If this is not done, obliteration only means driving the disease into new channels, already preparing to dilate.

If antiseptic surgery has done nothing more than give precision to surgical operations, and careful attention to detail in their after-treatment, it has effected much. If it is wished to deal with a part that is diseased and to obtain the fullest success, it almost amounts to a condition that it should be seen, provided that this introduces no additional element of danger.

I have operated on the spermatic veins in this way a great many times. In one instance only was any delay or danger imported into the case. This was an attack of erysipelas, which was directly traceable to the patient sitting on a draughty watercloset very shortly after the operation was performed. Though here there was delay and some danger, the result was satisfactory. As to the necessity for performing an operation with a view to effecting a radical cure, the sensations of patients, in addition to changes taking place in the testicle, are sufficient to indicate this. Hence, in deciding what is to be done, it is of importance to have under notice the various procedures having for their object the same result.

In the reports of the Army Medical Department I find that the number of recruits rejected on account of varicocele was as follows:—

Date.	Men examined.	Rejected for varicocele.	Ratio per 1000.
1878 ...	43,867 ...	574 ...	13·08
1877 ...	43,803 ...	676 ...	15·43
1876 ...	41,809 ...	587 ...	14·04
1875 ...	25,878 ...	326 ...	12·60
1874 ...	30,557 ...	371 ...	12·14
1873 ...	24,895 ...	324 ...	13·02
1872 ...	28,390 ...	536 ...	18·88
1871 ...	36,212 ...	670 ...	18·50
1870 ...	38,408 ...	801 ...	20·86
1869 ...	17,749 ...	447 ...	25·19

As these figures are taken from males approaching the prime of life, they not only give some indication of the prevalence of the disease, but further warrant the careful consideration of all methods having for their object its radical cure.

I see that recently Dr. Henry, of New York, and Dr. Levis, of Philadelphia, have revived the old practice of removing with a clamp portions of the scrotum for the purpose of giving a permanent support to the enlarged veins of the cord, with the object, I presume, of effecting their obliteration.

Though I have had no experience in this mode of operating for varicocele, I am rather disposed to doubt its efficacy by reason of the remarkable reproduction, if I may use this term, of the scrotum after it has been completely destroyed by sloughing, the result of urinary extravasation.

I recorded a case in 1875[1] of sloughing of the scrotum where the testicles were exposed and eventually covered in by granulation. This patient, Charles W——, happens now to be in the infirmary under my care for stricture. His scrotum, which was almost completely destroyed by sloughing, has been, as I pointed out to my class, entirely reproduced; if anything, it is rather more lax than natural. This is by no means a solitary example.

[1] Lectures on the Surgical Disorders of the Urinary Organs, p. 140.

A COMPLIMENTARY dinner was given by the medical practitioners of Halifax and suburbs to Mr. T. Dolan, F.R.C.S., on the 16th inst. The banquet was held at the White Swan, and was attended by the principal medical gentlemen of the town. The toast of the evening was proposed by Mr. Charles Smith and was feelingly responded to by Mr. Dolan. One result of the meeting has been the appointment of a committee, consisting of Dr. Britton, Dr. Symes, Mr. Dolan, Mr. Gascoigne, Mr. S. Charles Smith, Mr. Atkinson, and Mr. Scholefield, to perpetuate the dinner by forming a Medico Chirurgical Society, and, if possible, a medical library connected with the infirmary.

ON A CASE OF POISONING BY ACONITE.

By PETER EADE, M.D., F.R.C.P.,
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As the subject of poisoning by preparations of aconite is now occupying both public and private attention, the following notes of a most painful case of accidental poisoning by the tincture of this plant may be of interest, and may be worth placing on record as an addition to the various other cases already published. It occurred in 1858-9, and the victim was a young professional man who was acting as substitute for his brother, then house-surgeon to a public dispensary, of which I was one of the physicians. An inquest was held, and the following notes were made by me directly afterwards.

A. B. C., aged twenty, died suddenly about 1.30 A.M. on the 1st of January, 1859. It appeared by the evidence given before the coroner that on the preceding evening, being old year's night, he determined to sit up to see the new year in, and that at about half-past 10 or 11 P.M. he sent the housekeeper out for some beer and gin wherewith to make egg-flip. This was fetched, the flip made, and about a pint and a half of ale and two ounces of gin drunk. He also made a hearty supper of bread and cheese. He told the housekeeper at supper-time that he felt cold and uncomfortable, but he talked long and cheerfully. He had all day been quite well, and on the preceding night had been out at a dancing-party. He went to bed about half-past twelve, and put out his candle. About a quarter past one he got up, and told the housekeeper to go downstairs to fetch him some warm water (to make him sick), as he felt very bad. He also stated that his pulse was beating very fast. He said he had taken something before supper to create an appetite, and he was afraid he had taken something wrong. The woman got him some warm water, and advised him to put his fingers into his throat, which he said he had done without being able to vomit. A chemist who lived opposite to the dispensary was now sent for, and when he came found him much excited and frightened, saying that he felt very bad, and that his pulse was beating very fast—as he expressed it, "as if it would jump out of him." On examination the chemist found that it really was throbbing violently. The sufferer also remarked that he was afraid he had taken something by mistake for tincture of orange-peel. He complained of a pricking and tingling in the mouth, throat, and stomach, and even down to and in the anus. (He had complained during supper-time of an itching or tingling in the eyes or eyelids—i.e., soon after the supposed time of swallowing the dose.) The chemist now went downstairs to fetch some ammonia and ether, and when he returned (he heard him call out just before reaching the door of his bedroom) he found him in a cold, clammy sweat and dying, with some froth issuing from his mouth. He was conscious until a very short time before his death; and he did not appear to have been either convulsed, purged, or to have vomited. On examining the medicine shelves of the institution, it was found that the bottles containing the tincture of orange-peel and tincture of aconite stood on adjoining shelves, within about two feet of each other. The colour of the tinctures was nearly the same, and both were standing in the part of the surgery indicated by the deceased as that from which he had taken what he supposed to be tincture of orange-peel. Each of these bottles lacked some three or four drachms of being full, but the dispenser asserted that he had not used any tincture of aconite out of the aconite bottle since it was sent home from the druggist's. The label on the aconite bottle was a written one, and the tincture of aconite might easily have been mistaken by a careless or hurried person in the gaslight for tincture of orange-peel.

Taking into consideration that he stated himself to have taken a dose of what he considered to be tincture of orange-peel; that the tincture of aconite stood on an adjoining shelf, was of nearly the same colour, and was contained in a similar bottle, having an indistinct label; that the symptoms he complained of were a peculiar pricking and tingling feeling throughout the whole alimentary canal, as well as about the eyes; that he shortly after died with cold clammy sweats, within from two hours and a half to two hours and three-quarters of the supposed time of taking the dose—I gave the opinion that the death was produced by an overdose of tincture of aconite, its action having been delayed by the patient having partaken freely of beer, &c., followed by a hearty supper almost immediately afterwards, and I considered that the facts and symptoms warranted this opinion, even though vomiting, purging, and convulsions were absent. A verdict was returned accordingly.

No post-mortem examination was made, but it was noted, nineteen hours after death, that the body was pale and very rigid, the countenance calm, and the pupils somewhat dilated.

NOTE.—I afterwards learnt that this gentleman and his brother (the resident surgeon) had each, a day or two before, taken a dose of ammonia and tincture of orange-peel as a cordial; that the brother poured out the tincture, and that the deceased stood in the surgery and saw the corner whence the bottle was taken. This made the case still more clear and certain, and also explained an observation made to the chemist when proposing to get the deceased some ammonia, that he had already had some. He had no doubt taken some sal volatile with the tincture, in imitation of the cordial draught taken on a former occasion. I have no note of the strength of the tincture of aconite, but have no doubt that it was the tincture of the London Pharmacopœia of that date.

DEATH AFTER OPERATION FOR THE RELIEF OF STRANGULATED HERNIA.

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IN examining after death the subjects of operation for the relief of strangulated hernia, one is struck by (in many, nay most, cases) the remarkable absence of peritonitis, one of the conditions set down in standard works on surgery as the chief cause of death from, or, rather, after this operation. Sir James Paget surely points out the true cause in his Clinical Lectures—namely, the failure of the injured intestine to recover its normal condition. The object of these few remarks will be to try to show the accuracy of that statement from observation made on the cases occurring in the wards of this infirmary, to point out what appears to me to be a valuable and fairly constant symptom of this condition of non-recovery of the gut, and to offer a suggestion with regard to the state of the bowel at the time of the operation itself.

I may first describe a fairly typical case. Ann R—— is the subject of an umbilical hernia of some years' duration. Signs of strangulation, somewhat masked, appeared on the 25th of July. On the 27th the vomited fluid had a feculent character. On the morning of the 28th, the patient being in a fairly strong condition, the hernial sac was opened; a dark-coloured but clear serum escaped; the knuckle of intestine, about three inches in length, which was very congested, of a purple colour, but smooth and shining on the surface, was returned. A piece of omentum was also replaced. The patient at first seemed relieved by the operation, but in half an hour a large fluid motion was passed and diarrhœa set in. This continued, and on the following day the vomiting, which had ceased since the operation, returned, the fluid being dark in colour, and sour to the taste, but not feculent. In the evening of this day the patient died, apparently from exhaustion, the vomiting continuing until the end. At the post-mortem no signs of peritonitis were visible either on the intestines or abdominal wall. A piece of small intestine three or four inches in length, lying near the umbilical opening, was purple in colour, very injected, but still smooth on its peritoneal aspect, not covered with lymph or bound to neighbouring parts. On opening it and washing away some grey sloughy tissue, the mucous membrane was found to be grey and sloughing, in some places, especially at the site of the constriction, eroded into ragged ulcers. The summits of the valvulæ conniventes are also in some places ulcerated away.

The prominent features of these symptoms were—firstly, the return of the vomiting, due, not to any failure to relieve the mechanical obstruction, but to the paralysed condition of

the damaged though now patent intestine; secondly, the diarrhœa, associated with a sloughy and ulcerated state of the mucous membrane of the strangulated portion of intestine; and it is to the association of this symptom with ulceration of the mucous membrane that I wish to draw attention. This connexion is supported by the fact that, in those cases in which, in the absence of peritonitis, death has occurred from the non-recovery of the injured gut (as shown by the state of the constricted part and the dilatation of the part above), and in which this ulceration of the mucous membrane has occurred, diarrhœa has been a prominent symptom after the operation, with or without the return of the vomiting. It is also supported by the records of two cases of death from intestinal obstruction. In both constipation had been complete—in one case for a week, in the other for two weeks; in both vomiting of a semi-feculent and finally of a feculent fluid was present; and in both two days before death a very loose motion occurred, followed by diarrhœa of a thin watery fluid mixed with fæces of a pultaceous character. At the post-mortem one was found to be a case of internal strangulation of a portion of ileum by an old fibrous band; the constricted gut was port-wine colour, but smooth and shining on the surface, certainly not gangrenous; the mucous membrane was sloughy and ulcerated at the situation of the constricting band. Here also the floor of one of the sloughs had given way, and the patient died collapsed from the sudden shock of the escape into the peritoneal cavity of the intestinal contents. In the other a narrowing of the calibre of the ascending colon was found just beyond the cæcum by a fibrous stricture involving the whole circumference of the gut; here, too, the mucous membrane had sloughed away at the site of the stricture, though no perforation of the intestine occurred, and the patient died apparently from exhaustion. In both these cases general peritonitis was absent. Diarrhœa just before death was present, associated with an ulcerated and sloughing condition of the mucous membrane of the constricted portion of intestine. The question of causation of course still remains. The death and removal of the turgid mucous membrane may have removed so much of the obstruction as to allow the passage of fluids through the narrow aperture which before was completely blocked, or the laying bare to the irritating influence of fæcal fluid of the sympathetic nervous plexus in the gut wall beneath the mucous membrane may have acted reflexly on the rest of the intestinal tube, causing increased peristaltic action and watery secretion, or both these conditions may have acted in combination; at any rate, the destruction or injury of this nervous plexus would seem to be a sufficient cause for the paralysis of the portion of intestine so injured and the return of feculent vomiting in some cases in which, though the obstruction be removed, the gut fails to recover, and yet no actual gangrene of its coats can be detected.

Turning, on the other hand, to cases in which recovery takes place, I find from the notes, as indeed is pointed out in Sir James Paget's Clinical Lectures, that frequently no action of the bowels occurs for some days after the operation, the patient meanwhile continuing to improve in every respect. In all the cases of death from non-recovery of the strangulated intestine which I have observed, and in which general peritonitis has been absent, the temperature has been uniformly low throughout—in some normal, in several averaging 99°, in a few only reaching 100°; the gradual increase in the frequency of the pulse, and in diminution of strength, pointing at the same time to cardiac depression and failure. This association of lowness of temperature with irritation and injury of sympathetic nerve plexuses in the intestinal wall points, as has been suggested, to some considerable interference with the thermogenic function of the nervous system, whether by causing vaso-motor paralysis of the intestines, in which case the rectal temperature would be raised while that of the surface was lowered, or by some frigorific action of the irritated sympathetic nerves, as maintained by Bernard, there is no evidence to show.

With regard to the operation for the relief of strangulated hernia, it would seem, from the above remarks, that it is quite possible to return a portion of intestine which, though externally smooth and shining, slippery in texture, not hopelessly congested, certainly not gangrenous, is all the while internally in a far more advanced stage of decay, the mucous membrane having passed into a sloughing and ulcerated condition. Moreover, it is natural to suppose that, since the damage is done by the blood stream failing to leave, not failing to reach, the constricted portion, the injury would be greatest in the highly vascular slightly resisting mucous coat. Whether this condition of the interior of the gut can be ascertained by the feel of the part at the time of the operation is very doubtful; if it cannot, it would seem that the gut might be more frequently opened than returned in these advanced inflammatory and yet not outwardly gangrenous conditions of the intestine, and, above all, one more reason is added to the many which have been so often urged for very early operation in all cases of irreducible strangulated hernia.

Bedford.

DISORDERS OF THE SYMPATHETIC SYSTEM.

BY METCALFE JOHNSON, M.R.C.S., L.S.A.

(*Concluded from page 436.*)

M. N——, female, aged thirty-five (two children), when seen, had symptoms of flooding, in which an ovum or hydatid was passed. She complained of pain and tenderness over the left ovary, also soreness on pressure over the fourth and fifth dorsal vertebræ, with tingling of the hands and feet. These symptoms were relieved by rest in the prone position and soothing remedies. It seemed at first likely to end in hysteric spinal irritation, but is now, after the lapse of three years, quite well. Here the spinal irritation arose distinctly from functional disorder of the ovary.

A consideration of some of the symptoms developed under the hypodermic use of morphia may assist to throw light upon the physiology of a narcotic acting through the nervous system. After the insertion of the remedy, there is, first, a disposition to sigh, with a sense of constriction at the præcordia, followed by a slight confusion in the head and a tremor in the limbs, which, producing a warm glow, is followed by ease of the pain and generally sleep. After a longer or shorter interval, on waking a sense of comfort pervades the body, until, on assuming the erect position, nausea and vomiting are often produced. Again, on inserting the needle it often happens that the prick is felt on the spot exactly corresponding with it on the opposite side of the body. At times, when little or no pain follows the insertion of the needle, but a rather more copious discharge of blood ensues, a peculiar form of urticaria instantaneously covers the whole body, attended with intense itching at the soles of the feet and at the verge of the anus. It would seem fair to infer from these phenomena that, after touching the peripheral loop of the sentient nerve, the influence at once passes to the semilunar ganglion (præcordial constriction), thence to the middle cervical ganglion (globus), and then through the middle cerebral artery—whose capillaries are filled by the paralysis of the ganglionic nerve—to the grey matter of the convolutions (tremor and sense of fulness in the head), whose congestion promotes either sleep or mental activity, as the case may be. After the nettle-rash has appeared, the effect of the drug is generally more active, as might be supposed, from its presence in the circulation.

The following circumstance illustrates the action of the sympathetic nerve upon the sensorium. While strapping the testis of a man he suddenly fell faint, knocking his head against the wall. The blow at once restored his consciousness, so that he did not fall to the ground.

A short *résumé* of the *modus operandi* of a sentient act will assist in rendering more clear the influence of a disordered as well as of a healthy ganglionic nerve.

In the loop-work of nerve-fibre lying under the first two or three layers of epithelium, the stimulus of an external object is first received. It passes along the nerve-tube by means of the pulp to the grey matter of the spinal cord, where, by the influence of the ganglion through which it runs, the supply of blood to the nerve-cell is regulated. Here (in the cell of the grey matter of the cord) by the dialysis of the cell-wall such an electric condition is produced (all chemical change, vital or non-vital, is attended with disturbance of electric equilibrium) as determines the influence of the return message. But the influence may travel along the spinal cord to the larger centres—to the cell-wall of grey matter of the cerebral hemisphere, where, by similarly controlled blood-supply (always regulated by the condition, healthy or otherwise, of the ganglionic nerve, through the branches of the middle cervical ganglion, which by its connexion with the other ganglia receives its tone from them),

the dialysis supplies the return message, is conveyed to the periphery, and action is the ultimate result. Supposing, then, the experiences of life to be built up of myriads of such and such-like objective phenomena, it follows that more or less in healthy brains the same capillary vessels will be often filled with blood, and when that occurs a like sensation is produced, and if this is frequently repeated it becomes a memory, more or less easily engendered as the capillaries are used to being distended or not.

In elaboration of this subject it may be well to consider some curious phenomena of sensation. The senses of hearing and of smell in some cases reproduce sensations which have been, as it were, stereotyped on the memory. Thus the sound of wheels and horses' hoofs restores to my thoughts with unfailing accuracy one event of my life, while the odours of heliotrope, of russia leather, of the associated odour of apples and books, as also that of a tanyard, never fail to recall some other events of my early life.

There is another somewhat singular phenomenon of mental experience which thus seems to admit of a solution. I refer to the consciousness of having at some previous time either heard the same words or of having been placed in circumstances entirely similar to those which at present surround us. It seems probable that the exact state of fulness of certain capillaries in the grey matter may have been so nearly identical that the sensation appears almost, if not quite, the same as that which attended a former moment of our existence. All ideas to be tangible must be connected with words or events, otherwise they would pass like dreams. There is in all wild animals one which is, as by common consent, the "bull of the herd," that evidently owes its kingship to its superior will; and in the tribe of human animals this is found to be the same, and may be due to some superior power in the ultimate cell of grey substance so to dialyse the blood by which it is supplied as to produce the quasi-electric nerve message of will to his members, and from them to others of his race in whom the same power is less developed. At any rate, whatever may be the solution of the question, it is an undoubted fact that those whose nervous system is less robust apparently owe it to some cause acting deleteriously on the strength of organs under the control of the ganglionic nerve—as, for example, the testes, the ovaries, and other parts of the reproductive organs. It therefore becomes an object of interest to the observant physician to inquire how far the present habits of society tend to act beneficially or deleteriously on the physique of the young of our race, and whether by advice judiciously given to parents and other custodians of youth any plan can be suggested whereby the youth of both sexes can be brought to the highest perfection of *morale* and physique, and the races yet unborn can be ushered into existence in the most perfect health and strength that the forces of Nature can supply.

Among other points of importance are the education of the youth of both sexes to take interest in athletic exercises, the encouragement of the pursuit of such studies as will counteract the growth of erotic diseases, and the consideration of the effects of the use of tobacco and of the theocaffein class of beverages on the growth of the organs under ganglionic control. Whilst our duties as conscientious advisers of society on these points occupy our attention, there is one most responsible duty that we owe to matrons and their *protégées*, which can only devolve upon those who have by their distinction in the profession or by their age as family advisers obtained a special qualification to speak; since to the ordinary professional man the voyage between the Scylla of matronly prudery and the Charybdis of virgin modesty is so fraught with danger that it requires much boldness combined with manly modesty to enter upon the attempt. Nevertheless, the fair young *débutante* has her trials like her brother; and to behold the rosy cheek turn pale in the death-like pallor of chlorosis, to see the graceful gambols of the child giving way to the distortions of chorea, to hear the sad gurglings of epileptic convulsion, and even the fierce ravings of hysteric insanity, or the melancholy moanings of despair, without being able to extend the helping hand, is a misfortune that must attend the efforts of many a man who has to treat a diseased organ under ganglionic control and to struggle ineffectually with functional disorders which will only yield to treatment based on pathological and physiological truth.

To sum up, this subject presents the following aspects:—First, the organs of vegetable or animal existence, which are concerned both in reproduction and nutrition, are liable to become diseased by various causes, and chiefly the habits of social life, as in eating, drinking, &c. The influence of these organs on the whole nervous system is like that of an ill-tuned instrument in an orchestra, which the maestro, when he discovers it, will either remove or have it better tuned. It would seem that by adopting this view diagnosis would be more correctly formed, and, as a consequence, the treatment would be more successful, and the influence upon life and health economised. To recapitulate, then, I have endeavoured to show—(1) That the sensory impressions are rendered abnormal by the influence of the ganglionic nerve. (2) That the nerve receives its impressions from organs under its control, such as the viscera and glands, concerned in the process of nutrition and reproduction, which are in themselves the seat of morbid change, either functional or organic. (3) That the present habits of society as regards food, drink, and the reproductive function are such as lead to disease in certain organs, so much so that it has been found a matter of some difficulty to determine with certainty what the appearance of a healthy kidney or liver might be without the aid of a microscopic research.

St. Leonard-gate, Lancaster.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. THOMAS'S HOSPITAL.

SURGICAL CASES.

(Under the care of Mr. SYDNEY JONES.)

Aneurism of Axillary Artery; Paralysis of Musculo-spiral Nerve; Failure of Pressure and Esmarch's Bandage; Ligature of Axillary Artery above and below Sac; Cure.

(From notes by Mr. Niven.)—J. G——, aged thirty-seven, a printer, was admitted on Sept. 15th. He was phthisical, and was said to have had syphilis eighteen years previously. Three months before admission he suddenly felt acute pain in the right upper arm, which lasted nine or ten days; the pain was so great that he never attempted to use his right hand; when he tried to use it the arm was powerless. There was no history of injury. The day after the pain came on he observed a swelling in the axilla, which was then much larger than at the time of admission; it afterwards diminished so as scarcely to be noticeable. It was because the swelling returned that the patient applied at the hospital.

On admission the extensors of the right hand were found to be paralysed, the wrist was dropped, and the patient could not extend his fingers. There was an aneurism about the size of a walnut in the right axilla, giving expansive pulsation, and diminishing on compression of the subclavian artery.

On Oct. 1st digital compression was commenced at 1 P.M., but was left off on the 3rd, on account of the fatigue of the patient and soreness of the surface. No progress, or but slight, had been made with the aneurism. After a few days' rest an Esmarch's elastic bandage was applied and retained for one hour, but without any good effect.

On the 15th, treatment having hitherto failed to do any good, the patient was placed under chloroform, and the operation of tying the artery above and below the sac was performed. Silk was used, and the ends were cut off close. The nerves and veins were so intimately connected with the sac, that the latter was not cut into. Pulsation was at once completely arrested. The artery feeding the sac at the upper end was considerably larger than that running from the sac. The operation was performed antiseptically.

On the 17th the dressing was renewed; two sutures were removed; the wound was healing quickly. On the 21st the sutures and drainage-tube were removed; the wound was healed, except at the upper end. On the 31st the antiseptic dressing was removed, a piece of oiled lint applied, and the arm put in a sling.

Nov. 3rd.—Patient got up in the middle of the day; felt very well; right hand not so fixed and rigid as it was.

In a few days he left the hospital, and in two to three months' time had completely recovered the power of his arm and hand.

Venous Angioma of Cheek; Excision (from notes by Mr. A. B. Carpenter).—S. J——, aged nineteen, was admitted on Jan. 20th, 1880, with swelling of the right cheek. It was stated that a swelling had been noticed on her right cheek since she was seven years old; this swelling began to increase about fourteen months before admission, and had slowly grown. She said that she had never had any pain with it.

An elastic swelling presented, about the size of a large walnut—subcutaneous, movable under the skin and over the lower jaw—situated over the middle of the right half of the lower jaw; not tender. There was no increase of temperature, and the swelling was uniform, not lobulated. It might be felt projecting into the mouth, the mucous membrane being freely movable over it. It became very much larger on pressure over the internal jugular vein, or when the patient held her head down or stooped, and then the swelling became more lobulated. It was evident that the tumour was venous.

On Feb. 10th, Mr. Sydney Jones removed the angioma. An incision was made under cover of the lower jaw, and a flap dissected up to expose the angioma, which was kept distended by pressure on the jugular vein. It was dissected out with a knife and curved scissors. It was fairly circumscribed, and made up of large distended veins. There was not much bleeding; any divided veins were ligatured with catgut, and the wound was dressed antiseptically.—11th: Eyelids slightly swollen; tube taken out.—13th: Temperature 100°.—15th: No rise of temperature.—19th: Antiseptics left off. A small part of the wound unhealed where the drainage-tube was inserted; rest healed by first intention. Wound dressed with warm water and chlorinated soda. The patient went out well, with only a line of scar, and this under cover of the jaw.

Venous Angioma on Inner Side of Left Knee; Removal by Excision (from notes by Mr. A. B. Carpenter). W. R——, aged twenty-four, was admitted on January 19th, 1880. About ten years previously he first noticed a swelling on the inner side of the knee which disappeared on lying down and only appeared on standing, and especially on moving about. There was no pain in connexion with the swelling, but it produced a dull aching and impaired the power of the limb. Of late the swelling had been much increasing and caused more inconvenience. It had never occasioned any pain to the knee joint or appeared to implicate the joint in any way or impair its function. When the patient stood up or had an elastic ligature applied round the thigh there was seen to be a large irregular swelling (the size of an orange) a little above and to the inner side of the left knee. It appeared to take about four or five minutes for the swelling to be fully developed. It was subcutaneous, the skin being freely movable over it, the deeper part, however, dipped deeply. It did not pulsate. There was no redness or increase of temperature. The swelling measured some three inches tranversely and about four vertically. When the knee-joint was flexed and the skin over the swelling rendered tense, there were seen to be prominent bluish knots showing through, and the swelling altogether had the feel of enlarged veins.

On Feb. 6th, Mr. Sydney Jones removed the angioma. The tumour was first made prominent by circular constriction of thigh above the veins. The tumour was then further distended by an Esmarch's bandage applied to the leg below. It was then exposed by a crucial incision through the skin and cellular tissue. It was made up of large tortuous veins, which dipped deeply towards the popliteal. It was enucleated by knife and curved scissors, and was pretty well circumscribed, except where it dipped towards the popliteal space. There was pretty free venous hæmorrhage, which was controlled by catgut ligatures. The operation was conducted, and the dressing performed, under antiseptic precautions. The limb was fixed on a splint. At 6 P.M. he had a morphia injection, which was repeated at midnight, as he was in much pain.—7th: There was some numbness around the ankle. Pulse 80. No sickness since the operation. The patient still complained of pain. The leg was rather swollen, and the bandage was eased.—8th, 10 A.M.: The patient had slept fairly. There was less pain. The leg was much swollen, and was dressed to relieve this condition. No oozing occurred through dressing, only blood on the gauze. The wound looked well; was well cleaned and redressed, and bandaged lightly from the foot. The end of the bed was raised. In the evening there was no pain. The swelling in the leg had much subsided. The tongue was furred. There was some uneasiness about the abdomen.—10th: The patient slept well. There was no pain, and no swelling in the leg. The temperature was normal. There was a little sluggishness in the healing of one part of the wound. A pressure-wound from the splint on the outer side kept him in hospital a few weeks longer. The patient had for a while some impairment of nerve-power in the leg below the knee. Not only was there numbness along the distribution of the internal saphenus nerve, but the left foot was colder than the other, and the sensation was diminished. Later on, however, these symptoms disappeared.

GLASGOW ROYAL INFIRMARY.

WOUND OF FOREHEAD; TETANUS; CHIEFLY TREATED BY MORPHIA AND NITRITE OF AMYL; RECOVERY.

(Under the care of Dr. DUNLOP.)

FOR the following notes we are indebted to Mr. H. W. White, assistant-surgeon.

John W——, aged twenty-one, puddler, was admitted into the Royal Infirmary on January 2nd, 1882. The patient stated that on the 12th of December, whilst under the influence of liquor, he received a wound on the forehead, though he was unable to state how it was produced. He was treated as an out-patient, but the wound did not heal kindly, and on Jan. 1st he complained of great weariness, with considerable difficulty in swallowing, the muscles of the neck and jaws being painful and quite rigid.

When admitted on January 2nd the wound, which was situated half an inch above the eyebrow, a little to the right of the median line, and had a punctured, stellated appearance, was erysipelatous looking. It was half an inch in diameter, and did not quite lead down to the bone. The man complained of it being very painful. The corrugators of the brow were distinctly contracted, and the angles of the mouth drawn down, the risus sardonicus being well developed. He could not open his mouth, and fluids were only swallowed very slowly and with great difficulty. Temperature normal, bowels confined. Tincture of Calabar bean in twenty-minim doses was ordered every two hours; milk, eggs, and beef-tea. Linseed poultices were applied to the wound, and ice-bags to nape of neck.—3rd: Complains of soreness over the epigastrium, which is aggravated by pressure, and pain down the back. The wound is not nearly so much inflamed; but the jaw is firmly closed; and patient complains of soreness in the mouth and throat, the submaxillary glands being enlarged and painful. Tincture of Calabar bean increased to thirty minims. Warm fomentations were applied to throat and nape of neck; ice-bags discontinued.—7th, 9 P.M.: Has been very bad since yesterday, and is sleepless. The muscles of the back and recti are complained of as being very stiff and painful; the latter muscles stand out like bands. This afternoon, while attempting to swallow, a spasm of the glottis was induced, and the muscles of the trunk became affected, producing well-marked opisthotonos. Half a grain of hydrochlorate of morphia was given subcutaneously with apparent benefit, although a well-marked spasm resulted from the prick of the needle.—5th, 10 A.M.: The stiffness in the muscles of the jaw and neck is no worse; but patient is more restless, and it is with great difficulty that he can be induced to swallow.—8 P.M.: Temperature 100°. Dyspnœa urgent. Tetanic spasms occur every eight to fifteen minutes; body bent like an arch; patient resting on head and heels, and inclining to the right side to ease himself; eyes seeming to start from their sockets; anxious look. He is decidedly worse, and much weaker than yesterday. Pulse feeble and compressible; ordered two ounces of brandy daily. The Calabar bean not seeming to be of any service, it was resolved to depend on morphia and nitrite of amyl. Half a grain of morphia subcutaneously and a capsule of nitrite of amyl (four minims) were ordered to be given at the commencement of every spasm. The first capsule had a wonderful effect. Instead of struggling in the spasm for three or four minutes as before, so soon as the physiological effects of the drug were produced—in from twenty to thirty seconds—the muscles relaxed, and all traces of spasm disappeared.

One hour elapsed before the next spasm came on, and another capsule was administered with marked benefit.—6th, noon: Since last note he has had three spasms, the last being at 5 A.M. He is evidently much better, and says, as well as he can articulate, that the needle and capsules give him great relief. Temperature normal, and dyspnœa gone.—7th: Three-quarters of a grain of morphia were injected last night; patient dozed at odd times. Had six spasms between the hours of 10 P.M. and 7 A.M; nitrite of amyl inhaled at each attack, cutting short the spasm as before.—8th: Had four spasms in all last night, his worst time being from 12 to 3 A.M. Tongue very sore, from being bitten; says it feels too large for his mouth; throat again painful, and submaxillary glands enormously swollen; poultices to neck and throat. Temperature 100°. Three-quarters of a grain of morphia, as usual, at night.—9th: Four spasms last night, between 11 P.M. and 5 A.M.; none during the day. The inhalation of nitrite of amyl is still of service in relieving the spasms; but it was found that he had become habituated to the drug, and two capsules had to be given to produce the same effect as the first one did.—12th: Since last note he has had on an average three spasms in each twenty-four hours. The jaw is commencing to relax, and he articulates more distinctly; throat and tongue much better.—16th: One spasm last night; muscles are gradually relaxing. Temperature normal.—18th, noon: No injection given last night, as patient was asleep when visit was made; woke up an hour afterwards, and was very restless during the remainder of the night, having two spasms and incessant twitchings of the muscles. Three-quarters of a grain of morphia were injected this morning.—20th: No spasms during the last twenty-four hours.—22nd: Injection not given last night; very restless; twitchings of muscle, but no real spasm.—24th: Patient better to-day than he has been since trismus commenced. No spasm since Jan. 18th. 3 A.M.: Twitchings of muscles present at times. Risus sardonicus gone; rigidity of muscles is gradually passing off; neck yet very stiff.

Feb. 3rd: Injections of morphia to be discontinued, muscular twitchings gone. Patient has been up, but is very unsteady in his gait.—6th: Owing to family affairs patient persisted in going home, so he was dismissed with admonitory precautions.

March 6th: Patient well; no recurrence of disease.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Addison's Disease.—Sarcoma of Epididymis.—Diverticulum of Œsophagus.—Ulcer of Duodenum.—Diverticulum of Ileum.—Absence of Vermiform Appendix.—Additional Lobe of Liver.—Calculus impacted in Ureter.—Sarcoma of Tonsil.—Traumatic Abscess of Liver.—Cerebral Hæmorrhage from Tumour.—Ichthyosis Linguæ.—Bovine Tuberculosis.

THE ordinary meeting of the Pathological Society was held on Tuesday last, Dr. Wilks, President, in the chair. A large number of specimens were shown.

Dr. CREIGHTON read the report of the committee appointed to examine Dr. Goodhart's specimens from a case of Addison's Disease, which was to the effect that the suprarenal capsules were in miniature, and that the semilunar ganglia did not show any growth of new tissue or other morbid change.

Mr. EDWARDS showed a specimen of spindle-celled Sarcoma of Epididymis without affection of the body of the testis. He had not been able to find any similar case recorded in literature or preserved in museums. In microscopical sections the tubules of the testis were seen to be quite healthy. It was removed from a boy in whom it grew rather rapidly. He expected the lumbar glands would become enlarged.—Mr. BUTLIN confirmed the great rarity of cases of malignant disease of the epididymis, he knew of only one case beginning in or chiefly involving the epididymis, and that was recorded by Waldeyer. He thought that in a year or more internal growths would be found to arise and cause death.—Dr. WILKS asked if syphilis was suspected. He once brought a child to the Society with a lump in the epididymis, which disappeared under mercury and iodide of potassium, and was no doubt syphilitic.—Mr. EDWARDS replied that there was no history of syphilis in either parent, and he had not suspected that dyscrasia.

Dr. NORMAN MOORE showed a large number of specimens illustrating various abnormalities of the Alimentary Canal. 1. An œsophagus, from the anterior wall of which, at a point a little below the end of the trachea, a diverticulum as large as a pea protruded. The specimen was removed from a man aged forty-nine, who for five months before his death (of bronchitis) had suffered from some discomfort after eating. At the post-mortem the stomach was found to contain three minute ulcers, and the duodenum one deep ulcer as large as a fourpenny piece. That simple duodenal ulcer was a rare affection was shown by the fact that only two such cases had occurred at St. Bartholomew's Hospital in the last fifteen years. As to diverticula of the œsophagus, Quain and Sharpey regarded them as hernial protrusions, but Dr. Moore was inclined to think that they were fœtal abnormalities of the same age and nature as the normal diverticula of the œsophagus from which the lungs were developed. 2. Eight samples of diverticula from the ileum. In all the specimens the diverticulum was situated within four feet of the ileo-cæcal valve; the diverticula varied much in size, the largest being six inches long, and as wide as the ileum itself. Three of the specimens showed a marked constriction of the gut at the origin of the diverticulum—i.e., on the ileo-cæcal side. Meckel attributed the abnormality to a persistence of part of the omphalo-meseraic duct, and the fact that the sacs show tubular glands and epithelium similar to those of the ileum, confirms the view that they are derived from the hypoblast. At St. Bartholomew's twenty-seven examples had been found in 3200 post-mortems, and in one-third of the cases the abnormality had been the cause of fatal obstruction; this was produced in three cases by the narrowing of the intestine at the origin of the diverticulum, by adhesion of the tip of the diverticulum to the mesentery in three cases, to the umbilicus in one, to a uterine tumour in one, and by the coiling of a fibrous band, proceeding from the diverticulum, round the ileum in one. The symptoms of obstruction in these cases usually began gradually, but not always. 3. The cæcum of a man aged sixty-eight, which was without any vermiform appendix, and terminated in a long fibrous band, like the cæca of most of the Felidæ. 4. A small lobule of liver substance attached to the gall-bladder, and by only a long pedicle to the liver.—Dr. NORMAN MOORE also showed a specimen of Calculus in the Ureter, removed from a woman aged forty-five, who died of cerebral hæmorrhage, the calculus was impacted in the ureter, and had formed for itself a sort of pouch, surrounding this pouch was a great mass of fat. This was, he thought, an instance of fat accumulation due to irritation.—Dr. COUPLAND acknowledged the frequency of diverticula of the ileum. He usually observed them several times a year, but on two occasions only had he seen them causing intestinal obstruction. In one of these some coils of the intestine had passed through the mesentery of the diverticulum, which is generally found as a small triangular band formed by the omphalo-meseraic vessels. Curious cysts have been found in connexion with these diverticula, and have been recently described in Virchow's *Archiv*. In one case a very large cyst was found with a structure like the intestine. They have been called entero-cystomata. In some cases the diverticula develop irregularly, in others are constricted near the ileum, and then develop at their free end.—Dr. CREIGHTON had seen a large blood-cyst which was an extension of the vitelline duct of the fœtus.—Dr. WILKS remembered a case of typhoid fever in which the changes in the diverticulum were precisely like those in the ileum.—Mr. R. WILLIAMS said that the contraction of the intestine in connexion with the diverticulum was analogous to the stomach contractions sometimes met with.—Mr. SHATTOCK asked if the œsophageal diverticulum were not merely a hernia o the mucous membrane.—Dr. N. MOORE said it was impossible to answer Mr. Shattock's question without microscopical examination. When fresh, it seemed to have a muscular cast. In all his cases he observed a mesentery to the diverticula of the ileum. The constriction of the ileum was analogous to the common narrowing of the aorta at the junction of the ductus arteriosus.

Dr. S. WEST showed a Sarcoma of the Right Tonsil, taken

from a woman aged seventy-four, who first came under his care with a history of two months' illness, soreness in throat and dysphagia. On admission to hospital a large tumour was found in the position of the right tonsil, and some enlarged glands in the neck. The tumour increased rapidly in all directions, displacing the tongue and causing great dysphagia, pain, and discomfort, but not dyspnœa. Ulceration came on only quite late. Five months after the commencement of illness she died. The tumour then extended forwards to the symphysis under the tongue; it was unconnected with the surrounding parts, which were merely displaced; the ulcer on the pharyngeal surface was about one inch deep. The glands in the right side of the neck were all enlarged. A tumour the size of a cocoa-nut was found between the spleen, spine, and diaphragm. A small tumour was found in the wall of the heart. These tumours were all round-celled sarcomas. The case was remarkable from the isolation of the primary growth and the position of the secondary ones. Mr. Butlin recorded only nine similar cases, all of which occurred in males at an average age of fifty-five, six of the nine were operated on. The total duration was short; in all the cervical glands were enlarged. Three of the patients were completely examined afterwards, in two of whom there were secondary growths. Death was due to local effects only.—Mr. BUTLIN remarked that he only included in his table cases which had been examined microscopically. In all his cases the tumour had involved the neighbouring tissues, and Dr. West's case was in this respect very remarkable.—Mr. EVE suggested that this tumour was a lympho-sarcoma arising in the lymphatic tissue of the tonsil, and that this explained the rapid lymphatic implication.—Dr. WEST said many of the cases published had been called epithelioma of the tonsil, which they were not.

Dr. TURNER showed a Liver from a patient of Dr. Sutton's. On the right lobe was a large erosion, in which there was a cup-shaped depression; another excavation the size of an orange was seen on the left lobe; each of these was evidently an old abscess. The colon was ulcerated throughout. The patient was a man, aged thirty-nine, who fell on to his back. He had much pain at the time; and in a fortnight was treated for this pain and severe dysenteric diarrhœa. Three weeks later he felt something give way in the right hypochondrium, and was then very ill; there was dulness at right base, and friction in hypochondrium. An hepatic abscess was afterwards diagnosed, and two pints of pus removed with a trocar. He had had fever and ague sixteen years before, when abroad. Next day profuse diarrhœa recurred, and continued till the man's death from exhaustion. The liver was adherent to the diaphragm; and on separating it, pus escaped from between each lobe of the liver and the diaphragm. This case was of interest on account of the apparent cause of the abscesses; their position and symmetry pointed to the conclusion that they arose from the injury. But they did not arise from the direct effect of the fall, but from fissuring of the liver on its upper surfaces. In the third volume of the Pathological Transactions is recorded a case of fatal liver abscess attributed to a fall some months before. In Ziemssen's Cyclopædia only twelve traumatic cases are found. It was very interesting that the abscesses were found in a patient with ulceration of the colon. Dr. Bristowe had published four cases of old abscess of the liver with quite recent ulceration of the colon. He thought the ulceration of the colon might be produced by the pus from the liver getting into the intestine, and he thought this and Dr. Bristowe's cases supported this view. In his own case the ulceration was too recent to account for the persistent diarrhœa. He also found that the hepatic duct communicated freely with the abscess in the left lobe of the liver. Active chemical irritants may produce little effects on the upper bowel and yet great irritant effects on the lower end of the ileum and colon; and this pus may do the same, and, further, in the upper part the pus is mixed with bile and is quite fluid, but in the colon the solid fæces favour the lodgment of septic organisms.—Dr. STEPHEN MACKENZIE said that traumatic abscess of the liver was no doubt very rare on account of its protection by the ribs. He had had a patient who, after a fall from the rigging of a ship, had an abscess of the liver, which was opened and the man recovered. In many cases ulceration of intestine is secondary to abscess of the liver.—Mr. R. WILLIAMS said that abscess of internal organs from a blow on the surface was commoner in the brain than in other organs.—Mr. EVE said that if the pus was rendered aseptic by the bile how did it get septic again.—Dr. N. MOORE said that in cases of retro-pharyngeal abscess a large quantity of pus was injected into the alimentary canal, but in none of these cases did he know that irritation was produced. He thought Dr. Turner wanted more proof that the abscess of the liver was due to the injury, probably some of the ulcers of the colon were old. Abscess of the liver and dysentery may be two effects of one cause.—Dr. Wilks said that he had always followed Dr. Budd's teaching, that the abscess was secondary to the ulceration, and it was very difficult to prove the contrary proposition.—Dr. TURNER said that the bile might delay the septic operation of the pus, but not destroy its irritant properties.

Dr. ORMEROD showed Transverse Vertical Sections of a Brain, according to Pitre's plan, two of which passed through the ascending frontal and parietal convolutions respectively. These two showed three things—First, a cavity, club-shaped, wider in front, sending upwards a long spur and tapering off posteriorly (the cavity was above and to the outer side of the corpus callosum, and did not invade the ventricles or great ganglia of the brain); secondly, there was an area of blood-staining; and thirdly, in the frontal section the tissues appeared broken up and infiltrated with blood; this lesion extended up to the cortex in the middle third of the ascending frontal convolution. A section from the cortex at the junction of the superior and ascending frontal convolutions showed in part effused blood, in part a tissue of small round cells with a scanty dim stroma. The man was a type worker, aged fifty-six, who came under Dr. Buzzard's care for paralysis of the right arm. A fortnight later he had convulsive movements in the right thumb and fingers; two days later he was stupid and spoke thickly, and next day he was unconscious and paralysed on the right side, and was afterwards aphasic with rigidity in right arm. Bedsores formed and respiration was difficult, and he died in about three weeks. At the autopsy the change resembled a hæmorrhage, and the existence of the tumour might easily have been missed.

Dr. SANGSTER showed a patient who was the subject of Ichthyosis of the Tongue, as originally described by Mr. Hulke. The patient was a middle-aged man, tolerably healthy, but probably a high liver, and certainly a great smoker. He had frequently been in the way of venereal disease, but there was no certain history of syphilis forthcoming. On the right half of the dorsum of the tongue was an elongated creamy-white patch, standing out in bold relief from the surrounding mucous membrane. The patch was made up of hypertrophic papillæ covered with epithelial débris; the mucosa was not thickened. Over a roughly corresponding area on the left side the surface of the tongue was smooth to sight and touch, and presented a milky cast of colour. The patient had had the patch ten years; it gave no inconvenience. Some microscopical sections were shown from a case where epithelioma had supervened upon chronic smooth white patches on the tongue. The sections showed the mucous membrane over the patches to be quite bare of papillæ. The epithelium was divisible into two layers, and approximated in type to epidermis. The mucosa was twice or three times its normal thickness and sclerosed, beneath the Malpighian layer were many lacunar spaces, ante mortem, and most probably due to a breaking away of the tough epithelium from the sclerosed mucosa as it was drawn upon by the muscles beneath; the author thought that this tendency of the epithelium to become detached contributed to the superficial ulceration so frequent in those cases. Such cases as the one from which the sections were taken had been described as ichthyosis or psoriasis of the tongue; but microscopical demonstration proved the absence of any such condition. To show the discrepancy in the descriptions of the local characters, the author had drawn up a tabular statement of forty-four cases which had been reported by authors as ichthyosis or psoriasis of the tongue. On analysing the cases, it was found that only one case occurred in a female; thirty per cent. eventuated in epithelioma; of the forty-four cases, twenty-three occurred in smokers, fifteen of the twenty-three being mentioned as inveterate smokers. In only twelve cases was there proof positive or strong evidence of syphilis; so that, making due allowances, it is probable that a large residuum of these patients were non-syphilitic in origin. This fact, and the unsatisfactoriness of specific remedies, should modify the treatment these patients generally receive. The descriptions of the surface of the tongue varied, but tended to group themselves round three types. First, there was the group represented by the patient shown, a plaque or defined area

of hypertrophic papillæ, the mucosa beneath not thickened. Next there was a group represented by the case from which the sections were taken. A localised or diffused leathery condition of the mucous membrane: smooth, bluish-white, perfectly bald of papillæ, resisting to the touch, pinched up with difficulty. Lastly, there was the group, by far the largest, where the two foregoing conditions seemed to be combined, the mucosa being thickened and covered by hypertrophic papillæ and epithelial débris, in some cases by masses of horny consistence. In these tongues the dorsum is divided up into a number of quadrilateral spaces by antero-posterior and transverse fissures. The whole of the affected surface has an opalescent appearance, as if it had been painted with a solution of nitrate of silver. Cases forming the last group are most likely to be of syphilitic origin. Of non-syphilitic cases, some might be due to local irritation alone, smoking, &c., or this cause might be sufficient in an individual possessing some predisposing diathetic condition such as gout, or that tendency which predisposes the individual to the development of eczema or psoriasis.—Mr. BUTLIN said he had removed a plaque from a case of Mr. Willett's in St. Bartholomew's Hospital. The interior of the mouth is covered with hypertrophid papillæ.

Dr. CREIGHTON showed a specimen of Bovine Tuberculosis from an Eland. The great nodules are subordinate, and the lung changes are conspicuous. The antelope is a ruminant which approaches very nearly the bovine species. The disease is the same in man as in ruminants, and the bovine species. Virchow had spoken of the caseous masses in the lungs as dilated bronchi filled with cheesy matter; but in some of these cavities trabeculæ are found crossing them, and he had failed to find the bronchi opening into them. There may, he thought, be smooth-lined cavities in the lung which are not dilated bronchi.

The following card specimens were shown:—By Dr. Turner, specimen of Membranous Laryngitis, in which the fauces were not affected, and the child had not been exposed to diphtheric infection; by Dr. N. Moore, specimen of Chronic Rheumatic Arthritis in a dog, a disease said to be common and a frequent cause of night howling; by Dr. S. West, specimen of Larynx from a case of typhoid fever, showing necrosis of the cartilage of epiglottis and a deep ulcer at the back of right vocal cord, exposing the arytenoid cartilage; by Mr. Alban Doran, specimen of Horny Growth removed from the neck; by Mr. Morgan, specimen of Sequestrum in the neck of the femur; by Mr. Hutchinson, specimen of Tumour of Testicle and Degenerated Kidneys from a lamb; by Mr. Lunn, specimen of Cancerous Disease near pyloric end of stomach.

The Society then adjourned.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

Atrophy of Optic Disc after Phlegmonous Erysipelas.—Suppurative Panophthalmitis following Ligature of Common Carotid Artery. — Choroido-retinitis in Inherited Syphilis.—Choroidal Hæmorrhage from Injury to Eyeball. — Double Optic Neuritis after Head Injury.—Neuro-retinitis after Contusion of Brain.—Retinitis following Injury to Head.—Defective Vision in Seamen.

A MEETING of this Society was held on the 9th inst., W. Bowman, Esq., F.R.S., President, in the chair. It was announced that the Council had decided to have a special meeting of the Society in June for the discussion of the subject of sclerotomy.

Mr. NETTLESHIP showed a case of Atrophy of the Optic Nerve following erysipelas of the orbit. The attack was a severe one, ending in absolute blindness, with completely motionless pupil.—Mr. POWER asked whether there was any evidence of periostitis of the bones of the nose.—The PRESIDENT remarked that the eye itself had not suffered, but that probably the nerve had been directly implicated from pressure of the surrounding inflammatory exudation.—Dr. S. MACKENZIE asked whether the appearances were those of a primary atrophy or a post-neuritic atrophy.—Mr. NETTLESHIP, in reply, said there was a suspicion that the orbital inflammation had opened up from the nostril; there had been a discharge from the nose, but it had ceased two months before. There was no history of diseased bone, syphilis, or injury. The man himself attributed it to some brass filings getting into the eye. Mr. Nettleship did not see this man until the eye had been blind for some time, and then the appearance was only that of atrophy, and he could not say for certain whether post-neuritic or not. In one case Mr. Nettleship examined a part of the nerve behind the eye; it seemed to be in a state of necrosis, not staining with reagents as if sloughing. In some cases, perhaps, pressure or stretching of the nerve causes atrophy.

Dr. WALTER EDMUNDS exhibited a case of Suppurative Panophthalmitis following Ligature of Common Carotid Artery. The left common carotid artery was ligatured for secondary hæmorrhage following a self-inflicted wound of the throat; a few days after the ligature changes in the corresponding eye occurred, the eyelids became swollen, the globe somewhat protruded, chemosis of conjunctiva, cornea steamy, aqueous very muddy; pupil of moderate size, but did not dilate with atropine. With the ophthalmoscope only a faint reflex could be seen. The patient died a month after the injury with right hemiplegia. At the post-mortem examination three abscesses were found in the left side of the cerebrum, and suppuration had occurred in the vitreous. Microscopic examination of the eye showed great inflammation in the space between the two sheaths of the optic nerve, some slight inflammation of the nerve itself, swelling of the retina, and some choroiditis. Three cases are on record in which affection of the corresponding eye followed ligature of the common carotid. In one loss of vision only is noted. In the second complete loss of sight, which recovered in six months. And in the third there was disorganisation of the eye.—Mr. JAMES ADAMS said the case appeared similar to those of panophthalmitis following embolism, from septic endocarditis; and the presence of abscess of the brain suggested such an origin in this case.—Dr. EDMUNDS thought the cause of the abscess of the brain was due to anæmia, and if so it was fair to assume that the suppuration of the vitreous was due to the same cause.—Dr. S. MACKENZIE said that cerebral abscess was rare after loss of blood, and suggested there might have been extension of inflammation from the neck or thrombosis.

Mr. NETTLESHIP showed a child with excessive choroido-retinitis in each eye, characterised by the white, soft edge to the areas of exudation, which became partly absorbed, and organised into tough scar tissue, gluing together the choroid and retina, and leading to entire atrophy of the latter. Although the child presented no signs of syphilis, the mother did when bearing the child.

Mr. J. B. LAWFORD read notes of a case of Choroidal Hæmorrhage from external Injury without Perforation of Eyeball, in a man aged fifty-seven, who was admitted into St. Thomas's Hospital under the care of Mr. Nettleship on Dec. 9th, 1881. About a month earlier he was struck on the right side of the face by a charge of shot (No. 5). The side of the face was much lacerated by the shot, and became so much swollen that the patient was unable to open his eye for a week after the injury; he then found his sight very defective. When admitted, vision with the right eye was very imperfect ($\frac{3}{9}$ + 4 D., letters of Jaeger holding types to temporal side). The field of vision was limited in the upward and inward directions. Ophthalmoscope examination showed that the right optic disc was hazy and pale, in the yellow spot region abundant mottled, ill-defined hæmorrhages were seen. The appearances were to be accounted for either by retinal blood-staining, or blood upon the choroid covered by hazy retina; the left eye was in a healthy condition. The special point of interest in the case was the source of the blood seen by the ophthalmoscope. There was good reason to suppose that one or more shot passed around the outer surface of the globe through a wound in the conjunctiva, but there was nothing to show any penetration of the globe. It was possible that the shot had, after perhaps deeply grooving the sclerotic, wounded some of the posterior ciliary arteries; the extravasated blood might have found its way into the choroid along the sheaths of the ciliary arteries. Another suggestion made was that the blood was effused between the sheaths of the optic nerve, and thence found its way into the retina, but the absence of blood at the optic disc and the considerable degree of sight remaining were thought to negative this.—The PRESIDENT remarked that blows in the front of the eye caused injury at the point opposite to that struck, as in cerebral concussion.—Mr.

NETTLESHIP thought the case differed from ordinary cases. There was no rupture of the choroid, and the blow was not from one large body, but from many shots. It is not obvious why the blood should get into the interior of the eye. He believed there were cases on record of indirect gunshot injury of the eyeball, and supposed this case was of that class. It was the first he had ever seen. There are cases in which blood passes through the scelerotic along the sheaths of the ciliary arteries, and it was quite possible that the passage of fluids along these sheaths may take part in the nasal nutrition of the eye.—Mr. ADAMS FROST had seen a case of a woman in whom division of the nerve had been practised to prevent sympathetic ophthalmia, and three weeks later blood appeared on the anterior surface.

Mr. WAREN TAY read notes of Two cases of Double Optic Neuritis, without impairment of vision and without atrophy resulting, after injury to the head. The first case was that of a young man admitted into the London Hospital, under the care of Mr. Hutchinson, Oct. 26th, 1878, after a fall on the head. He had slight symptoms of concussion, and there was bleeding from the left ear. During the next few days slight ptosis and weakness of the internal rectus on the left side were noticed. On the sixth day the vessels on each disc were tortuous, and had a glistening, streaky, whitish appearance. There was no haze hiding any part. There was considerable hypermetropia. The changes were thought to be old. He was found to be deaf in the left ear. On the tenth day the ophthalmoscopic conditions were unchanged. On the twentieth day well-marked double neuroretinitis was found. The changes were more marked on the nasal side of each disc, and yet there was decided effusion at each yellow spot region, producing appearances resembling those of embolism. His sight was not affected. During the next week the signs of neuritis increased, and then diminished. The ptosis and the weakness of the internal rectus disappeared; the deafness remained. At the end of five weeks the ocular changes had disappeared almost entirely. At the end of four months his sight was as good as ever it was. He had four dioptries of manifest hypermetropia. Now, at the end of three years, he is well, and has good sight. The second case was that of a young man admitted under the care of Mr. Hutchinson, Nov. 16th, 1881, after being thrown from a trap on to his head. He had well-marked symptoms of concussion. He had evidently been injured on the left side of the occiput. Subsequently the chief symptom was great pain in the head. On the twentieth day well-marked double optic neuritis was discovered. His sight was unaffected. Mercury was ordered. The evidences of neuritis increased for a week, and then disappeared. His headache rapidly subsided. The mercury was left off at the end of a month, and he left the hospital shortly afterwards. At the end of seven weeks his vision was normal. He had two dioptries of manifest hypermetropia. Mr. Tay thought these cases of interest inasmuch as the neuritis was noticed while the patients were actually under care for an injury to the head. In his experience they were rare. Probably there had been meningitis setting up the neuritis. He alluded to the specimens of perineuritis optica shown by Dr. Edmunds at a former meeting.

Dr. COUPLAND read notes of a case of Double Neuroretinitis following Contusion of the Brain. The patient, a boy aged five, was admitted into the Middlesex Hospital on Dec. 14th, 1880, with symptoms pointing to the diagnosis of cerebral tumour and meningitis—viz., headache, vomiting, retraction of the head at times, rigidity and flexion of the legs, rapid pulse, and complete amaurosis. In each eye the disc was concealed by whitish exudation, studded with bright spots (fatty degeneration?), dwindling of the retinal arteries, and marked tortuosity of the veins. There was no otorrhœa, nor were there any signs of injury to the head, though his symptoms dated from a fall on the head from a boy's back three months before. He was unconscious for a short time after the fall, and later on vomited. The next day he was attacked by convulsions, followed by insensibility. Other fits supervened, and his mental faculties became impaired; his vision also began to fail, but at the end of four weeks he improved in other respects until four days before admission, when vomiting and headache returned. He had lost much flesh. Two days after admission he had a convulsion. The vomiting persisted for many days, and he was very fretful. A temporary improvement on the 20th to the 22nd was followed by a return of vomiting, lasting to the 27th, on which day he had another fit, beginning like the others in the right leg, recurring on the two following days. Again improvement took place, with occasional relapses of severe headache and vomiting. From Jan. 19th to the 21st he had a slight attack of erysipelas of the nose, and fell into a low condition, from which he rapidly rallied; and when he left the hospital on Feb. 1st his cerebral condition seemed slightly improved, the retinal changes remaining much as before. He was readmitted on the following day, having had several fits since his return home, and he died comatose in a few hours. At the post-mortem examination there was found no trace of injury to the skull. There was basic meningitis of some date, especially about the optic commissure, and much ventricular effusion. A film of yellow pigment covered the convexity of the hemispheres, and the lower part of the left temporo-sphenoidal lobe was the seat of a patch of softening and hæmorrhage of old date. A softening orange-coloured clot, the size of a hazel nut, occurred in the right centrum ovale, and another smaller focus of like appearance between the thalamus and caudate nucleus of the same side. All these changes were attributed to the fall five months before death. They had sufficed to produce the intense neuro-retinitis and atrophy, as well as the other cerebral symptoms. It was pointed out that the result of concussion in this case, without fracture, accorded with some of the experimental results obtained by Duret, and confirmed the statements of Duplay, the sequence of events being contusion of the brain, with hæmorrhages in the arachnoid and into the substance of the brain, followed by basic meningitis. Conditions were thus present which simulated those produced by tumour and tubercular meningitis. It was uncertain whether the ocular conditions depended on the hæmorrhages or the meningitis, probably the latter.

Mr. MCHARDY read notes of a case of Extensive Retinitis following Injury to the Head. The patient was a woman, aged twenty-five, who on Dec. 4th, 1881, struck the back of her head in falling. Subsequently she had constant headache and vomiting; and at the end of a week was obliged to take to her bed, where she remained suffering from the above symptoms for four weeks. On Jan. 18th, 1882, she was admitted to hospital, complaining of failing vision and constant headache. The urine was then free from albumen; and throughout the case the most careful search, carried on at various hours during the day, had failed to discover any trace of either albumen or sugar. On Feb. 23rd, vision was imperfect on both sides ($R=\frac{6}{18}$, $L=\frac{6}{9}$), headache was still severe, but vomiting had ceased for two months; there was no marked anæmia. Ophthalmoscopic examination revealed retinal changes very analogous to those seen in the advanced retinitis associated with albuminuria, or lead-poisoning; but there were no hæmorrhages. There were white lines along certain retinal veins. Mr. McHardy added that the urine had been most carefully and systematically examined, and was never found to deviate from the healthy standard; its specific gravity was about 1014. — Mr. HIGGENS mentioned the case of a boy with strabismus, hypermetropia, and double optic neuritis, after a fall followed by fracture of the parietal bone. There was good vision, but no change took place in the optic neuritis whilst under observation.—Mr. ADAMS FROST asked whether the degree of hypermetropia was high.—Mr. HIGGENS replied in the affirmative.—Dr. S. MACKENZIE asked Mr. McHardy whether the blood was examined, as the retinal changes resembled those met with in chlorosis. He also mentioned, with reference to Dr. Coupland's case, that there is very often a history of injury given in cases of cerebral tumour. In cases of head injury, where there is no fracture of the skull, and hæmorrhages in the region of the corpus striatum and thalamus, a difficult medico-legal question sometimes arose as to how far the hæmorrhage was due to the injury. —Mr. POWER said these cases showed how frequent optic neuritis is in injury to the skull, and he related a case of head injury following a fall from a tricycle. There was great swelling of the forehead and inability to open the eye for six days. Seven or eight days after the injury distinct pallor of the optic nerve was seen, and he then expressed an opinion that it would be likely to pass into white atrophy, which it did. In that case there must have been a very brief period of optic neuritis, and the injury probably involved the foramen opticum. A very small tumour may produce optic neuritis.—Dr. BUZZARD thought with Dr. Mackenzie, that in Mr. McHardy's case there may have been a constitutional cause for the neuritis apart from the blow. A few weeks ago he had seen a young woman with albuminuric neuritis, and although albuminuria was alleged to be absent, the pulse tracing showed characteristically

great arterial tension. In more than one other case he has made use of the sphygmograph to confirm a diagnosis of visual disease.—Dr. BRAILEY thought that the presence of papillitis with cerebral tumour was generally explained by descending inflammation—i.e., meningitis. There were other cases in which atrophy of the optic nerve occurred without producing inflammation—e.g., in glaucoma; also in tobacco atrophy, where there is no conspicuous swelling of the disc.—Mr. W. TAY had been surprised at the rarity of optic neuritis in patients admitted into hospitals with injury to the head. One must always be sure in cases of neuritis with a history of the injury that the lesion producing the neuritis is not of older date than the injury.—Mr. MCHARDY, in reply, said that the blood was not examined, and the chlorosis had improved. Her anæmia had arisen during her confinement to bed after the injury. No retinal hæmorrhages had been observed; the pulse was not tense, but no sphygmographic tracing had been made. He thought the case totally different from cases of optic atrophy in injury to skull, of which he mentioned an instance.

Dr. C. E. FITZGERALD of Dublin related a case of Remarkable Deficiency of Visual Acuteness in a Seaman. On Jan. 24th, 1882, he had been consulted with reference to the visual acuteness of a young sailor, age twenty-five, who was about to be promoted from the rank of third officer: he had served for eight years on foreign service, but had been in the employment of a home company for about three years. His colour sense was perfect, but his visual acuteness was very deficient in both eyes (right eye could count fingers at 3·5 m., and left eye V = $\frac{6}{36}$). There was well-marked convergent strabismus of the right eye, and a high degree of hypermetropia; no lens or any combination of lenses could effect any improvement in the visual acuteness of the right eye, but with plus 4·5 D the vision of the right eye rose to $\frac{6}{9}$. The ophthalmoscope revealed no changes. This vision was, of course, quite inadequate for a seaman, and it was difficult to understand how he had discharged his duties or satisfied the tests of the Board of Trade.—Dr. BRAILEY pointed out that the Board of Trade at present examined only for defects in colour vision and not for acuteness of sight.—Dr. S. WALLER of Liverpool mentioned cases of seamen whose vision he had found on examination to be defective.—The PRESIDENT pointed out that it was only recently that among ophthalmologists more accurate tests for visual acuteness were being applied, and he believed this very important matter was now under consideration by the Board of Trade.

OBSTETRICAL SOCIETY OF LONDON.

A MEETING of this Society was held on March 1st, Dr. Matthews Duncan, President, in the chair.

Uterine Fibroids removed by Laparotomy.—Dr. BANTOCK exhibited five specimens of Uterine Fibroids removed by abdominal section within the last seven months. They weighed respectively 12 lb., 6 lb., 4½ lb., and 1 lb. Some were of long standing, others of recent growth. In only one case was menorrhagia a prominent symptom, and in that it was enough to produce great anæmia. In all the pedicle was kept outside, secured at the lower angle of the wound by Kœberle's serre-nœud, and supported by two stout pins transfixing the stump just beyond the wire loop. Eight cases treated in this way recovered well, while four others in which the pedicle was treated intra-abdominally all died. Dr. Bantock also exhibited fragments of a very soft fibroid removed per vaginam by enucleation.

Extra-uterine Fœtation removed by Laparotomy.—Mr. KNOWSLEY THORNTON showed an Extra-uterine Fœtation removed by abdominal section on Feb. 28th. The patient ceased to menstruate in June, 1881; a membrane was expelled from the uterus in January, 1882. When seen after this the diagnosis was very obscure, the physical signs resembling those of a uterine fibroid. The operation was a very difficult one, the tumour being closely adherent to the omentum and uterus. It consisted of a small upper portion containing the fœtus, apparently a tubal fœtation, and a larger solid portion closely connected with the uterus and largely composed of blood-clot. The uterine attachment was treated like an ovarian pedicle. The patient on the third day after operation promised well for recovery.

Fibroid resembling Placenta.—Dr. HERMAN showed fragments of a Fibroid which, while undergoing spontaneous expulsion, had been mistaken for placenta.

Histological Results of Laceration of the Cervix.—Dr. GALABIN showed Microscopic Sections of the Flaps removed in two cases of Emmet's operation. In both cases the surface looking towards the vagina was shown to be really the everted cervical mucous membrane. One case was recent; the cervical villi were hypertrophied, but there was no marked inflammatory change, and the cylindrical epithelium was almost intact. The other case was old; the cylindrical epithelium was almost entirely lost, but there were patches of ill-formed squamous epithelium between the gland orifices; the surface was densely infiltrated with inflammatory cells, and the glands beneath were dilated and proliferating.

Trachelorraphy, or Emmet's Operation.—A paper was read by Dr. W. S. PLAYFAIR on the above subject. After a short account of the history of the operation, its frequent performance in America, and the high opinion entertained of it by certain American and Continental practitioners, the author referred to its comparative neglect in this country. He then described the cases for which it was suited, and referred to their diagnosis. Subsequently he alluded briefly to the mode of performing the operation, and to his own experience of it. Finally, he ended his paper as follows: "My own conclusions may be briefly summed up in the statement that, although there are a large number of cervical lacerations which produce no effect whatever, and, having healed, call for no treatment, there are a considerable number which give rise to much irritation of the uterus, which lead to important secondary results; and that these cases can often be rapidly and permanently cured by the operation for the introduction of which we owe Dr. Emmet a debt of gratitude, and with which his name will always be associated."—Dr. SAVAGE said Dr. Playfair proceeded on principles directly opposed to those of Emmet, who insisted that the operation should not be performed when there was any sign of disease in the cervix. The American school professed to believe that every disease (none excluded) incidental to the uterus may be and generally is the direct consequence of a cervical laceration. The English school disbelieves this, on good grounds. The diseases alluded to in Dr. Playfair's paper could be seen in their entirety through an ordinary Ferguson's speculum. To apply to them Emmet's operation, which was admittedly not seldom followed by pelvic mischief, would be an act of extreme folly. Entropion, not ectropion, according to Emmet is the common result of the lacerations.—Dr. HERMAN had performed this operation in eight cases. All professed themselves benefited at the time they left the hospital. The subsequent history of two of them he did not know. Three were complicated with other conditions. Of the others one was relieved of her symptoms, although the operation was a failure so far as obtaining union was concerned; in one the symptoms returned in three or four months; in the other he believed the operation had checked leucorrhœa. The American literature on the subject consisted mostly of general statements. Few writers had published cases, and the cases were mostly complicated ones. He thought there had sometimes been attributed to this operation benefit which was really due to the cure of other concomitant morbid conditions.—Dr. PRIESTLEY was prepared to believe that Emmet's operation would aid materially in curing some troublesome cases. His experience of it was limited to two or three cases; but he could recall others which had resisted all the usual modes of treatment, and might probably have been cured by this operation. Ectropion, with granular inflammation, was not nearly as difficult to cure as endocervicitis in the nullipara. He did not think these lacerations were attended with distressing symptoms so often as was represented. The operation was only required in exceptional cases. It was painful, difficult, and sometimes dangerous. He hoped, therefore, that it would not be performed with undue frequency.—Dr. WYNN WILLIAMS did not agree with the paper either as to the simplicity or risk of the operation. Cases ending in death, metritis and perimetritis, had been recorded. He did not think there were many cases in which it was required. Although on the look out for them, he had only met with one. Eversion was not always due to laceration.—Dr. BANTOCK thought that there was a field for the operation, but that the effects of laceration and the necessity for operation had been exaggerated. He had met with one case of laceration in which he thought the operation would be required, but the patient completely recovered without it.—Dr. MURRAY called attention to a published fatal case. Operating when there was a suspicion of

malignant disease appeared to him a curious idea. The duckbill speculum magnified any little tear that might exist. Diagnosis was more fairly made by Ferguson's speculum.—Dr. HEYWOOD SMITH agreed with Dr. Playfair as to the importance of the operation, but maintained that areolar hyperplasia often existed without fissure, and could be cured by potassa fusa, or the cautery at a white heat. A raw granulating surface difficult to heal was analogous to malignant papillary dermatitis of the areola and nipple, and often a precursor of cancer; in such it was important to operate. He asked if any Fellows had operated immediately after labour. It seemed to him that there were considerable difficulties attendant on such a proceeding. He had performed Emmet's operation in many cases with great success, both as to repair of the cervix and relief to symptoms.—Dr. FANCOURT BARNES thought the operation was only necessary in cases of bilateral laceration of the cervix with ectropion and enlargement of Nabothian glands. In unilateral laceration thickening of the cervix could be more readily dispersed by ignipuncture. — Dr. CARTER had operated six times with benefit, four of the cases remaining well three or four months subsequently. Slight laceration of the cervix was very common; not so cases requiring operation. He had been struck by the frequency with which displacement of ovaries complicated laceration of the cervix. This was so in two of his cases.—Mr. KNOWSLEY THORNTON called attention to the probability that fissure of the cervix with eversion predisposed to carcinoma, and that Emmet's operation prevented it. If so, a most important field for the operation existed. The specimens exhibited by Dr. Galabin were of great importance as aids towards settling this point.—The PRESIDENT could not concur in thinking tracheloraphy one of the greatest advances in modern gynæcology. It might be an advance; but, admitting all that was said for it, it was a very small affair compared with the triumphs of laparotomy shown that evening by Dr. Bantock and Mr. Thornton. A split condition of the cervix was said to be attended with protean symptoms and disorders. Not long ago ulceration, and then displacements, held the same position. He did not believe this, regarding all three as minor disorders whose attempted cure was often the worst part of them. The protean disorders were accompaniments, not consequences. Nevertheless the cure of such lesions might be a valuable service to the patient. An ectropion which could only be shown by a special speculum and special manipulations was an artificial ectropion. He did not regard the profession as having hitherto mistaken ectropion for so-called ulceration. Such cases, with or without ectropion, were generally easily cured; in cases with hypertrophy a good old plan was the caustic potass. He believed that if a new laceration were made by cutting out a bit of the cervix, cure would follow just as well as after tracheloraphy. The reference to the frequency with which the cervix was formerly divided as a means of cure was not a *jeu d'esprit*, but a weighty argument. He regarded tracheloraphy as at present *sub judice*, but was not impressed in its favour. He had not done it; but had seen the most exaggerated lacerations of the cervix interfere in no degree with health, comfort, or fertility.—Dr PLAYFAIR had studied carefully the writings of Thomas and Emmet, and thought that Dr. Savage must have evolved out of his inner consciousness the views which he attributed to them. It was impossible not to see that Dr. Duncan was prejudiced against the operation. His remarks showed that he was not familiar with the use of the duckbill speculum and tenaculum in these cases. The tenaculum was used not to produce ectropion, but to draw the lips together. He thought that when Dr. Duncan had fairly and impartially studied the subject he would alter his opinion. This operation was, of course, not to be compared with those which Dr. Duncan had referred to; but if it were the fact that there were hundreds of women leading lives of constant suffering, who might be cured by this operation, then it deserved to be called a great improvement in gynæcology.

MEDICAL SOCIETY OF LONDON.

President's Address.—Tetany.—Early Treatment of Prostatic Obstruction.—Stricture of Rectum mistaken for Retro-flexion of the Uterus.

AT the meeting on the 13th inst. the newly elected President, Mr. F. Mason, took the chair for the first time, and delivered an address, in the course of which he reviewed the progress of the Society since his first connexion with it, pointing out how its popularity and usefulness had been maintained and increased, and acknowledged in warm terms the honour conferred upon him. He would endeavour to follow in the steps of his predecessor in the chair, Dr. Broadbent, and would further the interests of the Society to the utmost of his power. He had been struck by the enormous amount of work achieved by the Society within the last twenty years, and suggested many topics of interest worthy of consideration by the Fellows at the present time, and concluded his remarks by referring to the value of full and free discussion so long as the sole aim was to "prove all things, and hold fast that which is good."

Dr. DAWTREY DREWITT brought forward a case of Tetany in a male child eleven months old, who had been fed upon arrowroot and corn-flour from earliest infancy, with the natural result that he suffered from gradual intestinal trouble and rickets. Accompanying the rickets there was alarming laryngismus stridulus, and, with the laryngismus, tetany. The most characteristic symptom was rigidity of the hands, the adductors appeared to be in a state of spasm, the fingers approximated and flexed only at the metacarpo-phalangeal joint, the thumb being adducted, extended, and opposed to the middle finger. The feet were arched and the toes slightly flexed. The spasm appeared to be painful, but under proper diet and cod-liver oil it rapidly subsided.—Dr. BROADBENT had seen several instances in women, and had seen benefit arise from the use of belladonna, possibly from its action on the peripheral nerves.

Mr. REGINALD HARRISON, of Liverpool, read a paper on the Early Treatment of Prostatic Obstruction. About one half the subjects of enlarged prostate suffer from interference with micturition. This is not interfered with when the hypertrophy is towards the rectum, and the relations of the prostatic urethra are unaltered; and, secondly, when the hypertrophied gland is lobulated, having channels through which the flow of urine can pass. He therefore advocated an early resort to mechanical dilatation, the danger of irritating the prostate by such interference being less at that period than when it was much enlarged and there was retention. For this purpose he employs a gum elastic bougie, two to four inches longer in the stem than usual, with an expanded portion an inch from the top, which is made to enter the bladder so that the prostatic urethra is subjected to pressure on the insertion and withdrawal of the instrument. As a rule, if dilatation is not too rapidly proceeded with, no irritation is aroused; but greater toleration of urine follows from the ease and completeness with which the bladder is then emptied. In some individuals intolerance of urethral interference was due to the urine containing uric acid in unnatural quantity and form, and on the correction of this the intolerance passed away. He had already had sufficient proof of the efficacy of this procedure, patients regaining the power of micturition they were beginning to lose. His object was to encourage a preventive treatment for a condition which was often followed by very distressing results which at present were only sought to be palliated.—The PRESIDENT surmised that the treatment of these cases would vary with their character, and asked why a bougie was preferred to a catheter.—Mr. PEARCE GOULD pointed out the impossibility of foretelling that a case, if untreated, would become "severe," and that the conditions were very different from those present in urethral stricture. In most cases the retention was as much due to atony of the bladder as to obstruction, and he thought that regular catheterisation would be of more value than Mr. Harrison's method.—Dr. SYMES THOMPSON mentioned a case of atony of the bladder in aortic valvular disease, where a pouch had formed in the viscus in consequence of the atony, which improved whilst regular catheterisation was practised, but recurred on its discontinuance. — Mr. E. OWEN did not believe that urine was retained in a pouch behind the prostate in these cases, but rather that the diminution of urine was due to the inability of the bladder to express the fluid that lay behind the hypertrophied gland. Mr. Harrison's plan ensured by catheterisation the extraction of this small amount of urine; but he was not prepared to admit that recourse to instrumentation could materially influence the hard prostatic tissues. He asked at what period was the treatment commenced.—Mr. BRYANT said that cases seldom presented themselves until they were beyond the benefit to be derived from Mr. Harrison's measure. He himself understood and adopted

the plan of regular catheterisation, so keeping the urethral orifice open, and possibly moulding it, and agreed that atony of the bladder extends into these cases. But he did not see what effect could arise from the use of thin bougies, except in very early stages, when, perhaps, their use was hardly justified.—Mr. HARRISON, in reply, said the treatment only applied to cases which threatened obstruction of urine from the commencement. It was not applicable in cases where atony or pouched bladder is responsible for the symptoms.

Dr. FANCOURT BARNES read notes of a case of Stricture of the Rectum mistaken for Retroflexion of the Uterus. The patient was sixty-five years old, and habitually constipated. When seen the bowels had not acted for twelve days, vomiting had set in, and an enema could not be given, examination showing the rectum to consist of a cul-de-sac. The case was sent to the author as one of retroflexion of the uterus; but on examination he found the uterus normal, and a firm growth springing from the sacrum, and involving the upper part of the rectum. Colotomy was advised, but refused; and death took place three weeks later. A post-mortem examination revealed the presence of a sacral tumour adherent to and compressing the bowel.—Dr. GILBART SMITH had seen a parallel case, where a like mistake had been made; here, however, a pessary had been worn for fifteen years; the rectal stricture was divided.

Reviews and Notices of Books.

On Chorea, and other Allied Movement Disorders of Early Life. By OCTAVIUS STURGES, M.D. London: Smith, Elder, and Co. 1881.

WHEN it is considered how common a disease chorea is, and how much interest its symptoms and pathology has always excited, some surprise may reasonably be felt at the small amount of separate literature to which it has given rise. Although pamphlets on isolated points in its history have occasionally been published, we believe that Dr. Sturges' work is the first English monograph which has aimed at giving a complete account of the disease. Abundant materials for the task existed already in the numerous memoirs which have been published, and among these the admirable collection of facts made thirty years ago by Germain Sée has never been surpassed. These, and the statistics collected by Dickinson, Hughes, Peacock, and others, have been freely employed and added to by a series of cases gathered from the records of the Children's Hospital by Dr. John Abercrombie, to whom the work is dedicated. A large part of the book has been in substance previously published in separate articles and at various times, but these have been recast into their collected form.

A general description of the disease is the subject of the first chapter, and this is followed by a collection of facts regarding its connexion with rheumatism, and the heart symptoms which may accompany it. The post-mortem appearances in fatal chorea are then described, and a discussion destructive of the various pathological theories prefaces a description of the physiological theory, which, in the author's opinion, best explains its symptoms and its history, while the last two chapters are devoted to treatment and prophylaxis.

Dr. Sturges' book has many excellences. It is clearly the work of a careful observer and laborious thinker. It is written in a clear, flowing, graceful style, and exhibits thorough conversance with most previous writings on the subject. It is, however, written in support of a theory. We do not say that this is its only object, or that such an object is necessarily a fault; but in the present case it does militate against the value of the book as an adequate presentation of the facts of the disease, for the influence of the theory can be traced from the first chapter to the last.

Chorea is, to most observers, a many-sided malady, having a clinical connexion, too obtrusive to be disregarded, with rheumatism and with heart disease, or at least with endocarditis; and also with certain habitual movements frequent in children, and recognised popularly as "fidgets." Dr. Sturges is able to see only the latter side of the disease, and maintains that chorea is nothing more than fidgets in a distinctly pathological degree, and in a more or less paroxysmal form. As regards the mere muscular symptoms of the disease, there is nothing to be said against the view, although it is for these rather a description than a designation; but Dr. Sturges goes further, and maintains that the disease is nothing more in its origin, pathology, and nature. Here he is at wide variance with most preceding writers. What, on this theory, it may be asked, becomes of the connexion of chorea with acute rheumatism and heart disease, which have hitherto dominated pathological theory as to its nature? The answer Dr. Sturges gives is that these facts have no real existence, but owe their origin to imperfect observation. The association of childish chorea with rheumatism is purely accidental and due to the commonness of the latter disease, or else the rheumatic pains cause chorea indirectly by the emotion they excite. But what of the endocarditis of fatal chorea, all but invariable, even in children—a lesion which, common to the two diseases, seems to clinch the connexion between rheumatism and chorea, and stamp it as more than accidental? Dr. Sturges altogether evades the point. In the chapter on pathology the only allusion to it refers the reader to the chapter in which the clinical symptoms are discussed, and in which there is a marshaling of reasons against the view that the apex murmur of chorea is ever evidence of endocarditis, but the pathological question is left untouched. What, it may also be asked, of the close relation in time between acute rheumatism and chorea, in which the one disease immediately succeeds the other? The obvious significance of cases of this nature it is beyond even Dr. Sturges skill to explain away. He insists upon their rarity, their limitation (?) to adults, but is compelled to admit that in such cases the chorea is apparently a nerve disturbance produced by the effect on the nervous system of the rheumatic state of the blood. We cannot, however, understand how, if the rheumatic theory be accepted for these cases, it can be limited to them.

While we thus think that Dr. Sturges, influenced by theory, has failed justly to estimate the significance of all the facts in the history of chorea, we must commend the ability with which he has unfolded and developed his theory. Whatever be the ultimate causes of chorea, there is no doubt that its form is largely determined by cerebral function, and that a certain functional development constitutes a predisposition to the disease, determines its frequency in childhood, and may, perhaps, in some cases be its sole cause. Dr. Sturges', as we think, too exclusive insistance on this element in its causation will not be without a good effect in directing attention to facts which often receive too little consideration.

As may be inferred from this theory of chorea, the author has not much to say regarding its treatment. The advice he has to give merely relates to the general regimen of rest, methodical exercise and diet, which all authorities enjoin and most physicians endeavour to secure. Any tonic that is specially indicated may be given, but the influence on chorea itself of any drugs Dr. Sturges regards as a delusion, purely the result of confident expectation on the part of the physician; and he sums up his opinion in the remark that "the aqua camphoræ of the British Pharmacopœia has been employed with such excellent results that there is the fullest justification for expressing confidence in it."

Lectures on the Pathology and Treatment of Lateral and other Forms of Curvature of the Spine. By WILLIAM ADAMS, F.R.C.S., Surgeon to the Great Northern Hospital, &c. Second edition. London: J. & A. Churchill. 1882.

THIS, a second edition of a well-known book, embodying Mr. Adams' riper experience, will be welcome to a large circle of readers. The author maintains his views

of the importance of the rotation of the vertebræ that occurs in all cases of serious lateral curvature of the spine. He points out that a simple classification of cases of scoliosis can be made by examining the back in the stooping position. This obliterates the curve when it is physiological only, diminishes without obliterating it when structural changes have only commenced, and increases the deformity when the structural changes are more marked. But the most important of the additions made to this edition is an appendix, containing the author's view of the value of Sayre's plaster-of-Paris jacket in the treatment of lateral curvature of the spine. While speaking approvingly of Sayre's system of extension, which, as he rightly points out, is not new, but was practised and described by Mr. Stafford more than thirty years ago, he condemns the plaster-of-Paris jacket as needlessly cumbersome, a useless appliance at night, ineffectual as a curative agent, and positively injurious from its interference with the proper exercise of the spinal muscles. On the other hand, he speaks highly of the poroplastic felt jackets, and commends the plaster-of-Paris jackets for cases of angular curvature of the spine.

Analytical Records.

CAMUSET'S CHAMPAGNE.

(CAMUSET'S CHAMPAGNE SHIPPING COMPANY, 44, MARK-LANE.)

THIS wine, which has hitherto been but little known in England, comes from Ay (Champagne), where it has been made since 1796. We have analysed it and examined it with interest, and are able to give it unqualified praise. It has a fair alcoholic strength, but is evidently unbrandied. It is free from adulteration of any kind, and possesses a very delicate flavour and bouquet. The "Brut" wine is of course very dry indeed, and seems well adapted for patients who cannot take sugar; but the sweeter brands will probably suit most palates better.

SANITARY PAINTS.

(THE SANITARY PAINT COMPANY, LIVERPOOL, AND 34, LEADENHALL-STREET, LONDON.)

The dangers and disadvantages of the oxy-carbonate of lead, commonly called white lead, are so numerous, that its use as paint would long ago have ceased if an efficient substitute for it had been known. Its manufacture is one of the most noxious of industries, and we have frequently drawn attention to the terrible sufferings of the work-people engaged in it. Workmen who use it are constantly liable to painter's colic, with its attendant "wrist drop," and there can be no doubt that persons who inhabit newly-painted rooms frequently suffer to some extent from the same cause. Then, again, lead compounds are easily blackened by sulphuretted hydrogen, a gas but too frequently present in the air of towns, and although this is to some extent remedied by the power which light possesses of promoting the oxidation of the black sulphide into the white sulphate of lead, discoloured paint is a very common cause of house-disfigurement. It is only the opacity, or "body," of white lead which has excused its use, and even in this respect it has, it appears, at length been rivalled. Mr. Griffiths, whose patents are owned by the Sanitary Paint Company, has produced a white paint basis which can be mixed with pigments of all tints, which does not contain a trace of lead (a fact we have verified by analysis), which is unaltered by sulphuretted hydrogen, and which, as far as we are able to judge, is at least equal to white lead in colour and body. The basis is evidently sulphide of zinc, but there is some peculiarity in the manufacture which gives unusual body to the compound. The company supply a great variety of different kinds of paint, of which we have been particularly struck with the "enamel paint," which yields a singularly smooth and hard surface, and seems peculiarly adapted for hospitals, nurseries, &c.

HATHORN WATER. (SARATOGA, N.Y.)

This somewhat remarkable mineral water was described and analysed by Dr. S. A. Fisk, of Northampton, U.S., in 1875. It is said to contain 888 grains of solid matter per gallon, which represents a strength of about one-fourth that of sea-water. The chief constituents are chloride of sodium and the bicarbonates of magnesia and lime; but notable quantities of bromine, iodine, barium, strontium, and a very considerable quantity of lithium, are present. Our own qualitative analysis, as far as it goes, confirms Dr. Fisk's statements. Of course sulphates are entirely absent, their presence being obviously incompatible with that of barium. Dr. Fisk, from his own experience, lauds the water as mildly cathartic, and as acting with excellent effect on the liver and kidneys. It will no doubt be tried by many physicians in England.

NON-IRRITANT IODINE FOR INTERNAL USE. GARDNER'S UNALTERABLE SYRUP OF HYDRIODIC ACID.

(W. GARDNER, NEW YORK; ALLEN & HANBURYS, LONDON.)

Hydriodic acid, containing as it does more than 99 per cent. of iodine, is an excellent form in which to administer the element. Gardner's solution is in all respects admirable. Not a trace of free iodine can be detected in it, and as to taste, it can hardly be distinguished from lemon syrup. In addition to the ordinary applications of iodine, it is described as useful in asthma, chronic bronchitis, and hay fever.

CORRY'S RECARBONATED FLUID MAGNESIA. CORRY'S CONCENTRATED LEMON SYRUP.

(WM. CORRY & CO., BELFAST; F. NEWBERY & SONS, LONDON.)

There is little to say of these preparations, except that each is excellent of its kind. The fluid magnesia is very pure, and, particularly, is quite free from lime.

BENGER'S PANCREATISED OR SELF-DIGESTIVE FARINACEOUS FOOD FOR INFANTS AND INVALIDS.—BENGER'S PEPTONISED BEEF JELLY.

(MOTTERSHEAD & CO., EXCHANGE-STREET, MANCHESTER.)

We have on a previous occasion noticed some of Mr. Benger's admirable preparations. Those now before us are not less satisfactory. The "farinaceous food" has no sweet taste, but its starch is converted into sugar by a short digestion with warm milk, yielding a liquid that would be assimilated with great ease. The "beef jelly" is perfectly clear, and altogether free from the disagreeable peptonic taste; it is a most valuable form of concentrated food.

New Inventions.

ELLINGTON'S PATENTED ADJUSTABLE MATTRESS.

MESSRS. ELLINGTON AND SON, of Friday-street, E.C., are the makers of a very good form of mattress. In structure it resembles the spring mattress now so generally liked, and in no way differs in appearance from it; but by a very easy and simple movement the upper part of it can be raised to any angle with the rest, and a patient of any weight can be readily moved or supported in any position. The special advantages of this mattress are its utility for ordinary purposes, its durability, ease of manipulation, and the fact that its cost is only a little above that of a simple spring mattress.

DAVIDSON RUBBER CO. ELASTIC BANDAGE.

THE bandage seen by us is a very good article, pure, odourless, uniform, and with excellent smoothly-cut edges. It is prepared in lengths of sixty feet from which any length can be cut. With it are sold small "safety" pins for fastening the last turn, as it is objected to the tape usually fastened on to Martin's bandage that it forms an *in*elastic constrictor of the part, and in this objection there is some force. It is probably sufficient to say that this bandage fully maintains the high character for rubber goods already won by this firm.

LEVESON'S AMBULANCE CARRIAGE

MR. LEVESON, of New Oxford-street, constructed an ambulance for the Haydock Collieries about a year ago, which has given great satisfaction to the surgeon and officials. It consists of a narrow mattress, of which the upper part can be raised to support a person in a sitting position. This mattress is placed in a shallow carriage with a hood at one end. The other end and also one of the sides are movable, so that the patient is easily placed in position. The wheels are all of metal with sunk india-rubber tires, and run very smoothly. It seems well adapted for use in collieries and large factories.

FRAZER'S OBSTETRIC BINDER.

THIS is made of perforated india-rubber. It is light, elastic, easily applied, and will fit any patient. We have used it, and were well satisfied with it, but for its odour, which is objectionable.

NOTES ON A CASE OF LEUCOCYTHÆMIA.

To the Editor of THE LANCET.

SIR,—As the causation of this rare and curious disease has been as obscure hitherto as its treatment has been futile, your readers may be interested by a case which seems to throw some light upon both points.

The patient, a well-built man, twenty-nine years of age, came to my friend Mr. Hoare complaining of a large tumour, which extended across his abdomen from the right costal border to the left anterior superior spine of the ilium. This proved upon examination to be an enormously hypertrophied spleen, the hilum being represented by a deep notch a little above the level of the umbilicus. The account of the patient was that some years before he had had a sharp attack of ague at Aspinwall, on the American coast, and that he had never entirely shaken off its effects. The swelling, however, had appeared recently, and attained its large proportions in the course of a few weeks. On examining the blood under the microscope we found that the leucocytes were enormously increased in number, almost filling up the interspaces of the rouleaux, while the coloured corpuscles were ill-formed, and diminished not only relatively, but also in the aggregate. The proportion of white to red was calculated at one to seven. None of the other blood glands were affected, and the only symptoms complained of were referable to pressure of the tumour, principally dyspepsia and vomiting from its interference with the stomach, and pain in the legs from compression of the lumbar plexus. The liver was slightly enlarged and tender, but the secretion of bile appeared to be unaffected. The heart was weak and had a well-marked functional murmur. Excessive marasmus was another leading feature of the case, the patient having fallen from fourteen to eleven stone in a few weeks. Having given both iron and quinine a fair trial, and found them equally inefficacious, we have now had recourse to arsenic in large doses, in combination with the iodide and chlorate of potash. This mode of treatment, combined with a liberal diet, and strict attention to the state of the bowels, has been remarkably efficacious. The tumour has already diminished in size, and some of the more distressing secondary symptoms have been alleviated. The principal interest of the case lies, I think, in the connexion to be traced between the malarious poison and the subsequent leucocythæmia, a connexion which seems to show that this obscure disease is intimately allied to ordinary "ague-cake," if not a mere modification of that pathological condition, determined by some idiosyncrasy of constitution or temperament.

I am, Sir, your obedient servant,

Aston, March, 1882. A. COWAN DOYLE, M.B., C.M. EDIN.

THE OPIUM QUESTION.

To the Editor of THE LANCET.

SIR,—In a leading article in THE LANCET of February 11th you comment on a series of my pamphlets published under the title "The Other Side of the Opium Question." I beg you will permit me to make the following remarks on the paragraphs of your article quoted below: "It is moreover difficult to attach much weight to any opinion of a writer who at one page admits that 'confessedly the practice of using opium in common with indulgence in alcohol exerts sufficiently deleterious influences,' and at another asserts that 'the moderate use of opium is, under innumerable circumstances, beneficial to mankind both in health and sickness,' and who deliberately defends as harmless the habitual administration of opium to young children."

Now, I certainly cannot see anything irreconcilable or discordant in the two paragraphs you have quoted. I again say that "the practice of using opium in common with indulgence in alcohol exerts sufficiently deleterious influences"; but the context and the word indulgence are sufficient to show that neither the moderate and rational use of opium nor of alcohol is signified. And I again say that "the moderate use of opium is, under innumerable circumstances, beneficial to mankind, both in health and in sickness." It is, however, the latter part of the quotation from your article to which I most object. I have nowhere defended the habitual administration of opium to young children. I have stated the practice exists in India, and that many children die from it, and I have also mentioned that some appear to grow up little the worse for the dosing they have experienced, and I have mentioned the tolerance of opium which children sometimes evince; but I have nowhere defended the habitual administration of opium to young children.

Fair criticism is one thing, misrepresentation is another. I have no objection whatever to criticism, even of the most severe nature, but I must enter a protest against misrepresentation. At the same time I add that I do not believe the misrepresentation of which I complain was intentional. A knowledge of THE LANCET during many years past forbids the entertainment of the idea that any unfair statement or intentional misrepresentation would be made in your journal.—I am, Sir, yours truly,

W. J. MOORE,
Deputy Surgeon-General, H. M. Forces,
Bombay, March 2nd, 1882. Presidency Division, Bombay.

*** We are glad to learn that Mr. Moore does not defend the habitual administration of opium to young children, but certainly the impression that he does is likely to be conveyed by the following sentence, in which the italics are our own: "Neither do I advocate the drug being given *indiscriminately* to children; but daily evidence sufficiently proves that it is often or *continually* administered to children without the latter being very much the worse for it" (p. 54).—ED. L.

MR. JOHN SMITH of Queen's Gate, Aberdeen, having in hand £2000, the balance of a trust fund, available for any charitable purpose in Aberdeen, has proposed to the managers of the Royal Infirmary, that it be appropriated to the founding of a Consumption Hospital in connexion with the infirmary. The proposal is said to have the approval of some of the leading physicians of the city, and has been remitted to the Committee of Management for consideration.

AN alarming fire broke out in the King's County Insane Asylum, New York, on Feb. 21st, in which two of the inmates perished, whilst in the confusion many escaped. The damage done is estimated at 30,000 dollars.

THE LANCET.

LONDON: SATURDAY, MARCH 25, 1882.

DOWNING-STREET AND SCARLET FEVER.

IT is difficult adequately to express one's satisfaction at finding the official residence of the First Lord of the Treasury placed at the disposal of those who seek to provide a Convalescent Home for Patients recovering from Scarlet Fever. The benevolence displayed in such an act on the part of Mr. and Mrs. GLADSTONE, and in which they were nobly supported by Sir RICHARD CROSS and others of the opposite political party, will of itself do vast good; it will show to the humbler classes of society, in their struggle with one of the most disastrous diseases of modern times, that they are considered and sympathised with by those who in such a struggle can command more comfortable and commodious conditions. The meeting at Downing-street on Tuesday is one of many signs of the revival of a deep interest in the physical sufferings of the poor, and in the adoption of means for preventing or mitigating them. The sign is acceptable, for there are indications of an opposite character. The great charities of London, its hospitals for the relief of sickness and the accommodation of persons suffering from grave accidents, are in a very straitened state. They are being slowly starved. Almost all of them are selling out their scanty stock. Nearly all have incomes far below their expenditure. Only last week we noticed the case of the London Fever Hospital, which had to exceed its income last year by £4000, which has already had to close two wards, and which, its noble president, Lord DEVON, tells us, will have to be closed altogether if the public does not come to its help. The *raison d'être* of this institution is very much the same as that of the Home for Scarlet Fever Patients. Yet while the friends of the one are fearing that they will have to close their institution, the friends of the other are elated with hope, and have the support of Royalty, of the heads of the Church, and of the leaders of both political parties; they have all the social influence of Downing-street and all the eloquence of Mr. GLADSTONE at their back. We confess to some gratitude for this sign of sympathy with poor plague-stricken people, at a time when charity itself has become critical, when there is no lack of wealth indeed, but an equal abundance of imaginary reasons for spending it on personal or social luxuries.

The case for providing a Home for patients suffering from scarlet fever, convalescent or otherwise, as stated by the Bishop of LONDON, the Premier, Dr. ANDREW CLARK, Colonel STANLEY, Lord ROSEBERY, Sir RICHARD CROSS, Sir RUTHERFORD ALCOCK, Mr. DODSON, &c., is very strong, and Miss WARDELL cannot be too much thanked for so urging her cause as to win over to it such advocates. If we express some difference of opinion as to the manner in which this great want is to be met, it will in no way affect our sense of the merit of Miss WARDELL in bringing this question to the very front of London society. The speakers at Downing-street based their case partly on the advantage to the patients themselves, but chiefly on the advantage to the public of a provision for isolation during the convalescent stage, which in this disease is also the infectious period. We may express our doubts as to the desirableness of removing scarlet fever patients until the period of desquamation is quite over. Be this as it may, the case for isolating institutions is very strong. Mr. GLADSTONE and Sir RUTHERFORD ALCOCK showed that something like 25,000 cases have to be treated in London in the year, and that the majority of them are among the children of the poor, in homes where, as Sir RICHARD CROSS said, isolation is simply impossible. From these homes—perhaps of tailors, or dressmakers, or laundresses—the disease spreads stealthily to the homes of the rich, who can often give no account of the origin of the disease. So far we are at one with the speakers of Downing-street. Only we go further. They have exposed a great evil; but they have proposed an altogether inadequate remedy. The risk of 25,000 annual cases of scarlet fever is not to be met with a proposal to establish, on the basis of private benevolence, a convalescent home for the bulk of them. The most sanguine philanthropist in the present critical humour of charity, and with the experience of the Fever Hospital before him, cannot hope to build and maintain a home that would accommodate 500 cases. Yet the case is urgent. If scarlet fever is to be curtailed in the scale of its ravages it must be by isolation. Isolation is in the case of scarlet fever very much what vaccination is in the case of small-pox. If this be so, it should be taken up by public men as a public question; and the provision demanded in the public interest should be made at the public cost and on a public scale. Sir JOSEPH FAYRER showed at the meeting what the British rule in India has done for the curtailment of epidemic disease. The prevalence of scarlet fever in England is a public question—it cannot be met by private efforts, however kind or generous. It is a disgrace to the State, and ought to be encountered in a public way, and by public funds.

THE mysterious jaundice which so often affects newly born children has always given rise to much interest and many hypotheses, based for the most part on fancy rather than on fact. By some authorities its cause is referred to the liver, by others to the blood. Modern theories of jaundice render the former explanation the more probable, since the opinion that the elements of the bile are preformed in the blood has been practically given up, and with it falls to the ground the theory of "jaundice by suppression." VIRCHOW believed that icterus neonatorum was merely a variety of the common catarrhal jaundice, and arose from duodenal catarrh, while COHNHEIM has assumed that the bile formation of fœtal life is small, and is so suddenly increased at birth that the bile-ducts are not at first competent to carry the secretion away. Neither of these assumptions rests on any evidence. Another group of theories ascribes the jaundice to the disturbance of the circulation in the liver which occurs at the change from intra-uterine to separate life. HEWITT and WEBER believe that the distended veins compress the bile-ducts, while FERRICHS has adopted an older theory of MORGAGNI, and suggests that the sudden diminution in the supply of blood to the organ leads to a passage of the secreted bile into the bloodvessels. The

theory of BRESCHET, that the jaundice depends on changes in the colouring matter of the blood, and is thus hæmatogenic in nature, has been recently revived by EPSTEIN, but it rests on considerations which are, with one exception presently to be mentioned, even more purely hypothetical, and its chief support is the feeble argument that other causes have not yet been demonstrated.

This lacuna in our knowledge of the subject is to some extent filled up by facts which BIRCH-HIRSCHFELD, of Dresden, has supplied in an article contained in a recent number of VIRCHOW'S *Archiv*. It is, he points out, very difficult to avoid associating the jaundice in some way with the disturbance of the hepatic circulation on the transfer of its chief blood-supply from the umbilical vein, especially when regard is had to the conspicuous congestion and œdema of the liver, well described by WEBER, which occur in cases in which the circulation through the umbilical cord is interrupted before the respiratory movements, by their effect on the right heart, afford an adequate compensation. It is to the connecting link between the two phenomena that BIRCH-HIRSCHFELD'S attention has been specially directed. He notes that the vessels in the hilus of the liver are surrounded by a dense layer of connective tissue, which is continued into the organ along the branches of the portal vein, and that in cases in which there is venous obstruction in the liver, in consequence of hindered birth, this tissue is the seat of conspicuous œdema. A broad layer of grey pulpy tissue encloses the vessels, and is seen also around the umbilical vein in its diaphragmatic portion, and may also extend to the gall-bladder. The microscopical appearances of this tissue are those of œdema with a more or less abundant accumulation of round cells in the interstices of the tissue. That this swelling of the tissue must compress the bile-ducts is sufficiently obvious; and BIRCH-HIRSCHFELD has found that not only, under these circumstances, are the bile-ducts distended, but there may be a positive difficulty in squeezing the bile out of the gall-bladder in the duodenum, and in the latter there is a manifest deficiency of bile. In such cases, in which death occurs during the first day of life, commencing icterus may be distinctly detected; and the gradual increase of the jaundice in connexion with this pathological condition may be observed in patients in whom life continues longer, as cases reported by BIRCH-HIRSCHFELD demonstrate.

A difficulty, however, in accepting this theory is presented by the fact, which has been relied on by the advocates of the hæmatogenic origin of the jaundice, that the presence of bile pigment can rarely be demonstrated in the urine. The cause for this is not very clear. Its significance is, however, lessened, if not removed, by an important fact ascertained by BIRCH-HIRSCHFELD—that in fatal cases of this infantile jaundice the presence of bile acids may always be demonstrated in the pericardial fluid, whereas they cannot be found in other children who do not present jaundice. This may be taken as proof that the colour depends on the presence of bile in the blood, and not on any mere destruction of blood-corpuscles and transformation of the blood pigment; it may also be regarded as proof of the hepatogenic origin of the jaundice. By the definite theory of BIRCH-HIRSCHFELD all the characters, peculiarities, and date of this form of jaundice may be perfectly explained.

In very rare cases, however, jaundice of much graver type occurs in newly born children. One cause of this is a congenital atresia of the bile-ducts; more frequently it is due to the compression of the ducts by syphilitic inflammation and growth—the syphilitic peripylephlebitis of SCHÜPPEL. Another form, which is extremely grave, seems to be developed by an infective process. The *materies morbi* enters by the navel wound, and is perhaps the same as causes puerperal fever in the mother, conveyed, it may be, by bacteria, since two forms of micro-organisms may be found in the blood of infants in this condition—spherical and small rod-shaped bacteria,—the latter probably identical with those proved by KOCH to be associated with the septicæmia of the mouse. Further investigations are necessary to ascertain whether these correspond to two different forms of infection. BIRCH-HIRSCHFELD'S observations, however, tend to show that the rod-shaped bacteria occur especially in the form in which the disease develops rapidly, as a virulent general infection, with a strong disposition to hæmorrhage.

In these cases an arteritis umbilicalis has generally been found, and the conclusion has been drawn that this vessel is the channel of infection. Of sixty cases phlebitis umbilicalis was found in eleven, simple thrombus in the vein in four, arteritis alone in thirty-two cases, and inflammation of both vessels in three. Nevertheless, even when the artery alone is conspicuously diseased, the liver as a rule shows intense alterations, inflammatory changes in the periportal and interacinose tissue, and acute degeneration of the liver cells, which constitute strong reason for believing that the infection reaches the liver by the umbilical vein. After birth the varying pressure on the liver vessels, due to the cardiac and respiratory movements, causes an alternate emptying and filling of the remnant of the umbilical vein whenever the contraction of the artery arrests the circulation within it. Hence the conditions are most favourable in the artery for the local development of the morbid process, but in the vein for the systemic infection, and the movement of the blood in the latter may explain why the local changes in it are less intense. BIRCH-HIRSCHFELD describes three cases in which there was a central phlebitis of the umbilical vein and a pylephlebitis had developed at the opening of the umbilical into the portal vein, whereas the whole lower end of the former was free—a condition which can only be explained by assuming that the movement of blood in the vein carried the infectious material forwards, so that its action was exerted chiefly on the portal vessels. This condition may easily escape notice in an ordinary examination. No relation is to be traced between the intensity of the vascular change and the degree of the jaundice which is so constantly associated with this infection, but the former is always intense when the changes in the substance of the liver are well marked; thus it seems likely that this jaundice also is of hepatogenic origin, and it is probably due, like the benign form, to the swelling of the periportal connective tissue compressing the bile-ducts within the liver itself. We can thus understand that the degree of jaundice should lessen towards the close in cases of severe general infection. The conditions which favour the occurrence of the benign form of jaundice, premature birth, weak breathing, &c., also favour the development of the malignant variety if there exist any cause of septic infection.

THE public is gradually beginning to admit that our hospitals exist not only for the relief of suffering amongst the poor, but for the advancement of the practical knowledge of those whose daily work is the ministering to the relief of disease and injury. There is no part of hospital management where there is more need of insisting upon this principle than in that which relates to post-mortem examinations. Nevertheless, English doctors, who claim to be humane in the broadest and deepest sense, are the last to desire that the feelings of the poor should be wantonly violated, or indeed violated at all. For this reason we should view with distrust any legislative action compelling post-mortem examinations, except in cases of suspected foul play, or of such doubt that it is impossible for a medical man to give an honest certificate as to the cause of death. As to the actual plan pursued at the different London hospitals in regard to the obtaining of post-mortem examinations, there is, we believe, some diversity. In one of the largest, the distinct permission of the friends is obtained for every autopsy; in another a printed notice is posted up, which states that it is the rule that a post-mortem examination shall be made of every case dying in the hospital; and to this printed notice reference is made in the event of any difficulty arising. We speak under correction, but we believe that in the majority of the hospitals the plan pursued is to allow the friends to see the dead body, and subsequently the necropsy is performed, unless forbidden. This plan, on the whole, works well, and has received the *imprimatur* of long-established custom. As to the mode in which dead bodies are disposed in the mortuary, and the manner in which they are conveyed away after the examination has been made, we believe that in the practice of some of our hospitals there is room for improvement; but it may be truly asserted in regard to the Children's Hospital, Great Ormond-street (and doubtless also the other Children's Hospitals), that the greatest possible care is taken to spare the feelings of the friends. The arrangements are as follows. The body of the dead child is taken to a beautiful little mortuary chapel, where it is decently and reverently laid, and left there until the parents and friends have seen it—of course at the earliest possible opportunity. According to the usual custom to which we have referred, if not forbidden, the post-mortem examination is afterwards made, and the body sent away, clean, decently attired, and carefully placed in the coffin, so that there is nothing to distress the feelings of the friends. For thirty years this plan has worked well, and only on one or two occasions have slight difficulties arisen, which have been satisfactorily explained. When such pains have been taken, and we may say expense incurred, we cannot but regret that the newspaper reports of a case from this hospital, in which some misunderstanding had occurred, and which was brought before the magistrate of the Bow-street Police-court on Saturday last, should give so erroneous an impression of the arrangements made in regard to post-mortems. The case in question was as follows:—A moribund child was brought to the out-patient department on the 7th inst. The house-surgeon immediately admitted the child into a ward, and by various restoratives it was kept alive for about four hours. The mother was told that she must not go away from the child, but after a time she left, and did not appear again until six hours after its death. The woman asserted before the magistrate that when she appeared and asked to see her child she was told that no such child had been admitted; the fact being that there was delay of a few minutes in obtaining information, on account of the night porter and the night nurse having come on duty and not having heard of the death of the child. Very soon, however, the sister of the ward appeared, and, in accordance with the usual custom, was about to conduct the mother down to the mortuary chapel. The mother declined to go and see the child, and was then instructed to come next morning at 9 A.M. This she failed to do. Now the child having been brought to the hospital moribund—in such a condition, indeed, that it was impossible to make any physical examination as to the nature of its disease—a post-mortem examination was as necessary as if it had been brought in dead. The autopsy was made in the afternoon, twenty-six hours after death, it being assumed that the mother had seen the child. On the appearance of the mother during the progress of the autopsy, she was, of course, not allowed to see the child, but instructed to send the undertaker to arrange for making a proper coffin. Instead of this, in the evening a rough shell was sent, in which, doubtless, the body rocked about with the result of some disfigurement. Hereupon the mother and her employer wrote, complaining to the committee, and not getting immediate explanation, owing to the committee not sitting for a day or two, brought the case before the magistrate, although it is stated that the secretary at once acknowledged the letter and said that the matter should be investigated. Mr. FLOWERS, it appears, "declined to interfere criminally, but would not say that it was not a case for a civil action" (*The Times*, March 20th). The matter is to be reconsidered. Whatever may be the law of the case, in all justice and fairness we fail to see that the hospital authorities showed any lack of consideration or straightforwardness of which the garbled statements of the woman might, on the first blush, appear to have convicted them. It would have been perfectly open to the medical officer to send a memorandum of the case to the coroner, and thereby expose the woman to the odium of an inquest, which would have involved not only the post-mortem, but inquiries as to her previous treatment of the child.

THE researches of M. DE LACERDA, of Rio Janeiro, on the antidotal action of Permanganate of Potash in Snake-bite were the subject of a recent communication to the Académie des Sciences by the distinguished naturalist, M. DE QUATREFAGES. Some further cases of apparent cure have been lately published by M. DE LACERDA; and several of these, quoted by M. DE QUATREFAGES, are very remarkable in character, since the injection was not made until eleven or twelve hours after the bite. The extreme swelling of the limbs, the profound anxiety of the sufferers, and the internal and external hæmorrhages, seemed to announce a speedy death. Nevertheless, after a few injections all the symptoms disappeared, and in a few days the patients were well. M. DE QUATREFAGES remarks that previous researches of M. DE LACERDA seem to demonstrate that the serpent poison owes its toxic properties, not to the liquid itself, which is secreted by the glands, but to corpuscles more or less analogous to those which are found in

various kinds of virus. He asks the question whether the permanganate of potash may not be equally useful in cases of septic poisoning of various kinds, and the question seemed to the Académie to be of sufficient importance to warrant the formation of a commission to investigate the subject. It was also suggested that the antidote might be found equally useful in cases of bite by the indigenous viper of France, which, although so much less virulent than the serpents of tropical climates, causes some deaths every year, and probably produces, in a still larger number of cases, persistent injury to health.

In a description of his method, M. DE LACERDA insists on the importance of preparing the solution of permanganate of potash immediately before it is used. He advises that packets of the salt should be prepared beforehand, each containing one-tenth of a gramme, and that a small bottle should be provided capable of holding ten grammes of water. The contents of one of the packets, dissolved in one bottle of water, gives a 1 per cent. solution. Half a Pravaz syringeful of this solution should be slowly injected into each bite, a ligature having previously been placed on the limb to arrest the circulation. After each injection the part may be gently pressed to facilitate the diffusion of the liquid. If the limb be already swollen, two or three injections may be made towards the limit of the swelling. Should the rapidity with which the symptoms develop make it probable that a vein has been penetrated by the serpent's tooth, it is recommended that one injection should be made into a vein.

The remarks of M. DE QUATREFAGES led to a subsequent communication on the subject from M. VULPIAN. Experiments which he has made upon dogs show that the intravenous injections of a quarter or half a gramme of permanganate of potash, in a 1 per cent. solution, causes in general only transient toxic effects, if the animals are large, but a small animal may be killed by half a gramme of the salt. A large animal is killed by the injection of a gramme into a vein. Vomiting and diarrhœa precede death, which occurs from progressive asthenia in ten to twenty hours. Putrefaction is very rapid, and the blood is dissolved; there are ecchymoses in the serous membranes or the endocardium, the liver is pale, the gastro-intestinal mucous membrane and the kidneys are intensely congested, the urine is sanguinolent and contains but little urea, and pulmonary infarction may be present. The microscopic examination of the heart shows the presence of granules, which are apparently of microbial nature, and the pus of a small abscess, formed at the place of injection, manifestly contained microbia. M. VULPIAN concludes that a small dose would be decomposed as soon as it entered the blood, while a dose sufficient to act on the poison in the blood would itself kill. He is therefore inclined to explain the recoveries, in cases in which the effect of the poison had become generalised, as independent of the antidote. At the same time he thinks there is a high probability that the permanganate is useful in cases of recent serpent-bite, injected locally. Thus the results of M. VULPIAN'S experiments on animals do not encourage any expectation that the permanganate of potash is likely to prove useful in the case of zymotic maladies, as M. DE QUATREFAGES suggested.

Annotations.

"Ne quid nimis."

SCIENTIFIC RESEARCH.

THE representative meeting of members of the medical profession, and of others interested in the advancement of Scientific Medicine and Surgery, which is to be held on Tuesday, the 28th inst., in the Library of the Royal College of Physicians, will take into consideration matters of the utmost importance as concerns the progress of science in this country. The object of the meeting is to found an Association for the Advancement of Medicine by Scientific Research. The necessity for the formation of such an association has long been felt, and individual societies have endeavoured to supply the want by granting funds for the purpose of individual research, or, as in the case of the Pathological Society, obtaining aid from Government for the prosecution of an inquiry that was of national importance. Again, it has long been felt that a powerful and influential body composed of representative members of the profession has been required to protect the interests of science from the misrepresentations and persecution of a small body of fanatics. There can be little doubt that while public opinion, on the whole, is in favour of some degree of restriction being placed on the practice of experimental research on animals, still a very considerable majority recognise its necessity, and would gladly acquiesce in power being entrusted to a responsible association who would guarantee that no needless experiments would be performed, whilst the purpose of legitimate inquiry would be facilitated.

ARMY ESTIMATES.

THE estimate for the "Medical establishment and services" of the Army for the year 1882–3 amounts to £300,800, being £320 above the amount for the past year. The increase, however, is not really due to the Medical Department, but is caused by additions to the pay of the military commandant and staff-captain at Netley, the former receiving £201 and the latter £174 more than last year. No reason is assigned for this augmentation. We trust the day is not far distant when both appointments will be abolished, and when the anomaly of a discharge depôt for time-expired men within the walls of a hospital for invalids will cease to exist. In addition to the £300,800 there is a charge of £5750 for the Director-General and the officers employed at the head-quarters in Whitehall-yard. The *personnel* of the department will consist of one director-general, 7 surgeons-general, 18 deputy surgeons-general, 529 brigade surgeons, surgeons-major and surgeons, 56 acting medical officers, and 3 apothecaries. These numbers are the same as last year, with the exception of one additional acting medical officer. Provision is also made for twenty surgeons on probation while going through the course of instruction at Netley. Of the above 614 officers, exclusive of the surgeons on probation, 452 are required for home and 142 for colonial service. In this, of course, are not included the medical officers who are serving in India, as they are not provided for in the Army Estimates but in the Indian Budget. The amount taken for the pay of the administrative officers, including the director-general, is £22,134; for executive officers, including three apothecaries, £107,503; and for acting medical officers £22,329—making a total of £151,966. The Army Hospital Corps, 1952 strong, officers and men, of whom 1622 are employed on home and 330 on colonial service, requires a sum of £70,000; and £2720 are put down to pay of nurses in women's hospitals, miscellaneous labour, &c., of which £1596 are appropriated to hospitals at home and £1124 to the colonies. The pay of militia surgeons amounts to £9500, being £2500 more than in the past year; and £4000 are provided for the pay of civilian medical

practitioners and medical bills at home, and £300 in the colonies. The cost of medicines and surgical instruments is put down at £23,000, being £19,000 for home and £4000 for colonial service. The expense of the Army Medical School at Netley amounts to £6579, but this includes an allowance of £400 to the examiners of candidates at the London University. A sum of £4181 appears under the head of Staff of General Hospitals; but from this it would be only just to deduct £2268, the expense of the military staff kept up at Netley, not for medical purposes, but for the working of the discharge depôt for time-expired men. There are at present on half-pay, but eligible for re-employment, 15 medical officers of executive rank, for whom a sum of £4000 is taken, and there are two officers of the Army Hospital Corps at a sum of £250. These appear to be the principal charges for the effective branch of the medical service. The retired pay of the department amounts to £135,000, the number of officers on the list being 57 of the administrative and 311 of the executive ranks. To this must be added £300 for the Army Hospital Corps, of which there are at present only two retired officers. Under the head of rewards to departmental officers for distinguished or meritorious services we are pleased to see a sum of £1400 appropriated to medical officers; the list includes the director-general, 3 inspectors-general, 7 surgeons-general, one deputy inspector-general, and two surgeons. The only change in the list during the year was the grant of £100, vacated by the death of Inspector-General Whyte, to Surgeon-General Longmore, C.B., whose title to it, we believe, will be admitted without hesitation by all who know him and the valuable work he has done in the department.

CHARGE OF MANSLAUGHTER AGAINST A MEDICAL STUDENT.

AN inquiry as to the death of the Rev. Matthew Campbell, M.A., aged forty-three, curate of All Saints, Surrey-grove, Old Kent-road, who first was treated by Thomas Akins Smyth, and finally expired in St. Thomas's Hospital, has resulted in a verdict of manslaughter against Smyth, in his being committed for trial, and bail being refused by the coroner, Mr. S. F. Langham. It appears that Mr. Campbell had unfortunately been advised by the persons in whose house he lived to send for Smyth on the Monday, February 20th. Mr. Campbell was suffering from retention of urine. The narrative of Smyth's attendance is not complete, but, according to Mrs. Campbell's evidence on the 28th inst., Smyth called and promised to return in two hours and relieve her husband, but he never came. Smyth, on being examined, said he was a graduate in Arts of the Queen's University, a student of medicine at St. Thomas's Hospital, and resident medical officer at the Triangle Dispensary, Kennington. Another illustration, by the way, of the stuff supplied at many private dispensaries. He did not think an operation necessary. He was not aware of the bladder mischief. Previous to the inquest Smyth had a plate on his door with "Smyth, Surgeon," but it was removed during the inquiry. On March 1st Mrs. Campbell called in Mr. C. Pearce, who at once pronounced the case full of danger, and recommended removal to St. Thomas's, where, notwithstanding means for relief, the patient died on March 2nd, of gangrene from extravasation of urine. The case has very properly been referred for trial by the coroner. Meantime we are content to place the principal features of it on record. Without prejudging it, we may express our surprise that educated people in the position of Mr. and Mrs. Campbell should have spent a week without some perception of the unqualified character of Smyth, notwithstanding the agony of Mr. Campbell and the failure of Smyth to perceive the gravity of the case, or to make any proper attempt to give relief.

THE ANASTOMOSES OF PULMONARY VEINS.

ACCORDING to Zuckerkandl, if the pulmonary veins are injected no vascular arrangement can be seen in the finer bronchial tubes distinct from the respiratory reticulum; but the capillary network of these tubes is continued uninterruptedly into the alveolar reticulum, and the vessels of both are of the same calibre. Apparently the ramifications of the bronchial veins pass into those of the pulmonary system. Thus the greater part of the blood coming from the bronchi passes into the pulmonary veins, and into the arterial blood. The vessels which are termed "bronchial veins" do not reach the smaller bronchial tubes, but are distributed only to those of the second or third size; and even this region does not belong to them exclusively, for some of the veins of these tubes open into the pulmonary veins. The anterior bronchial veins, which receive blood from bronchi of the first division, from the bronchial glands, and from the posterior surface of the pericardium, discharge their contents in part into the vena azygos, in part into the posterior bronchial veins, and in part into the large trunk of the pulmonary vein. The posterior bronchial veins open, for the most part, into the vena azygos; the left into the vena hemiazygos accessoria, sometimes into the innominate vein. Hence an injection into the pulmonary vein passes not only into the proper venous vessels of the lungs, but also into the veins of the œsophagus, aorta, diaphragm, the pleura, pericardium, and may ultimately find its way into ramifications of the portal vein. The chief part of the mediastinal plexus belongs to the aortic system. There is thus no doubt that in the lungs venous blood is mingled with arterial, for if it is assumed that the blood becomes aerated in the walls of the bronchial tubes, there remains the mediastinal plexus, which pours the greatest part of its blood into the arterial path. Varieties in the arrangement which Zuckerkandl has observed are (1) opening of the bronchial vein into one branch of the pulmonary vein; (2) opening of a branch of the pulmonary vein into the superior vena cava; (3) opening of one branch of the pulmonary vein into the portal vein—anomalies which constitute abnormal illustrations of normal arrangement.

THE BOLTON IMPROVEMENT ACT OF 1877.

A DEPUTATION of the medical profession in Bolton recently had an interview with the Sanitary Committee of the Town Council with reference to the contagious diseases clauses of the Improvement Act of 1877. The deputation consisted of F. Ferguson, Esq., J.P., Dr. Macfie (Secretary of the Bolton Medical Association), Dr. Settle, Mr. Gillibrand, Mr. Court, and Mr. McLeish. They represented the opinion of nearly thirty gentlemen; and Dr. Macfie read to the Sanitary Committee a statement embodying the views of a meeting held at the Infirmary on the Thursday preceding the interview. The statement was as follows, and is eminently instructive:—"(1) The inspectors call too often, and do not so much look after the sanitation of the dwellings as trouble the patient. Let the Sanitary Authority look to the sanitation of the house and its surroundings. (2) The Sanitary Authority, in the person of the medical officer, does not actually call until the end of the case, but leaves the inspectors to give unnecessary and sometimes irritating instructions. Let the Sanitary Authority take up the disinfection of the house as soon as the medical attendant has instructed the householders to report to the Sanitary Authority that his attendance has finished. (3) The Sanitary Authority sometimes gives medical instructions contrary to those given by the medical attendant, and sometimes contrary to all sanitation. We consider ourselves capable of undertaking the complete treatment of infectious disease, and for that reason interference from the Sanitary Authority

is unnecessary and irritating, and will only tend to breed ill-feeling between us and that Authority. (4) The Sanitary Authority inspectors proceed with supposed disinfection before cases have thoroughly recovered, and before the medical attendant has given over attending. (5) The Sanitary Authority has disputed the diagnosis of the medical attendant. (6) The Sanitary Authority has refused to pay for certificates in cases where it has asserted another medical man has previously reported the case. (7) Scarlet fever and scarlatina should be so arranged as not to appear in the list of cases to be reported as separate diseases. (8) The medical reports should be considered as private and confidential. (9) Why fine a medical man without giving him warning that you will do so unless he complies with the Act? Do all the medical men in the town report cases of infectious disease? (10) Medical men outside the borough attend cases of infectious disease within it, but they have not been supplied with certificate-books. (11) Cases are removed without consulting the medical attendant, and yet the patient may be suffering from serious inflammatory disease independent of the infectious disease. (12) The objections we have to the Act now being applied are that the powers which are sought for are too arbitrary, and place too much power in the hands of the officer of the Sanitary Authority." After this deputation had retired, Dr. Livy, J.P., had an interview with the Sanitary Committee, and testified, in his own name and that of a few friends, generally in favour of the contagious disease clauses of the Act, and the Committee after deliberation unanimously resolved to leave the clauses undisturbed.

THE SALE OF POISONS.

RECENT events have turned public opinion to the question of the sale of poisons, and some of the utterances which appear in the public press seem to indicate that further restrictions may possibly be put on their sale by legal enactment. It is well to bear in mind, however, that the difficulties in the way of procuring poisonous substances are already very great, and that any further restrictions would seriously hamper trade. Many of the most poisonous matters are used largely in trade, such as the mineral acids and arsenic, which are employed for purposes so numerous that anyone wishing to obtain them for criminal purposes would have no difficulty in getting them, if not directly from the manufacturers and retailers, through some circuitous channel. Then, again, the cyanides, the most deadly of all mineral poisons, are used very extensively by photographers, and the difficulties of getting them would always be trifling to anyone whose mind is set in that direction. Nor must it be forgotten that many of the most poisonous substances are found in hedgerows or gardens, and anyone with slight chemical knowledge would have no real difficulty in making an extract of frightful virulence from the aconitum napellus itself, one of the commonest of ornamental perennials. Tobacco, laurel, hemlock, foxglove, and several other plants might by simple processes be made to serve no less deadly purposes; and, in fact, there can be no doubt that in spite of the utmost stringency of our laws wickedness would find a way to work its ends. The virulence of many of the mineral and vegetable poisons is as nothing when compared with that of organic poisons of septic origin, and these it would be impossible to hedge around by any laws. The greatest safeguard against the crime of poisoning is the knowledge that modern chemistry and modern physiology can detect the substances used with unerring certainty, and if the public wish to feel safe in this respect they must be careful to discountenance any efforts on the part of sentimentalists to arrest the progress of scientific knowledge. If we were to make it impossible to buy poisons, we should simply drive the would-be poisoner to acquire the art of manufacturing poisons for himself; and since, under the existing law, the knowledge that a certain poison has been bought by a certain person is generally the most important link in the chain of evidence, we should pause before enacting fresh laws which must seriously hamper business, without, we believe, proving any real hindrance to criminals.

COFFEE.

IN an annotation on this subject which appeared in our issue of March 4th we pointed out how great were the reasons for supposing that unadulterated coffee was becoming a rare article among the stock in trade of a grocer. The proof of this is before us in the form of a tabulated statement of the results of thirty-seven analyses of coffee bought in and near London during the past month. These analyses have been made by Messrs. Wigner and Harland at the instigation of Mr. H. Pasteur, of Mincing-lane, whose public-spirited action in the matter cannot be too highly commended. Of these thirty-seven samples, three were professedly "taraxacum coffee," "dandelion coffee," and "date coffee," and were sold as such. These contained respectively 0, 10, and 57 per cent. of true coffee, the remainder being composed of other vegetable matter. The remaining thirty-four samples were served in response to a request for "coffee," and of these two were composed of 100 per cent. of genuine coffee, and thirty-two were composed of coffee, varying from 7 to 68 per cent., mixed with chicory, "finings," dates, dandelion, and other vegetable matters. Of these mixtures, sold, be it observed, as coffee, fifteen out of the thirty-two were labeled "a mixture of chicory and coffee," but ten of them contained other matters in addition to chicory. Fourteen were sold without any label, and of the remaining three, one was labeled "specially prepared French coffee" (this contained 34 per cent. of coffee), and the others bore a label announcing that they were "mixtures," but not saying of what. Of the thirty-two samples of adulterated coffee, one contained over 60 per cent. of coffee, four contained between 50 and 60 per cent., four contained between 40 and 50 per cent., ten contained between 30 and 40 per cent., six contained between 20 and 30 per cent., six contained 10 per cent., and one less than 10 per cent. It will thus be seen that an extensive system of fraud is being practised upon the public with the connivance of Government, who by a Treasury Minute dated Jan. 20th, 1882, have permitted the importation, under a duty of twopence per pound, of "*coffee or chicory, roasted and ground, mixed, without reference to the proportion of the mixture, and the permission to extend to any other vegetable matter applicable to the uses of chicory or coffee.*" This reads to us very like a general permission to ingenious persons everywhere and anywhere to cheat the British public, provided that twopence in the pound be paid to the Board of Customs. A memorial on the subject was lately presented to the Lords Commissioners of Her Majesty's Treasury, and from the reply to this memorial made by Lord F. Cavendish we gather: (1) that the obnoxious Treasury Minute was made *on the recommendation of the Board of Trade;* (2) that the permission was given because "there seemed to be a trade demand for it." We are thus enabled to see that because certain tradesmen thought that a good deal of money was to be made by selling rubbish to the public, the Right Hon. Joseph Chamberlain, the President of the Board of Trade, obtained this Treasury minute, of which we think every honest-minded man has a right to complain. THE LANCET has always taken a perfectly fearless course in the matter of food adulteration. It has not scrupled to publish the name of any tradesman who was found by THE LANCET

analyst to be guilty of mixing improper materials with the articles sold by him, and we think that the President of the Board of Trade is bound to offer some explanation of a recommendation which has been avowedly made by him, and which is in distinct contradiction to the spirit of the Adulteration Acts. We hope Sir Wilfrid Lawson will take the matter up in the House of Commons. He is never tired of attacking the brewers—let him turn his attention to the grocers.

THE NATIONAL HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, VENTNOR.

IN last week's number of THE LANCET, we briefly referred to the fact that this hospital had been made residuary legatee under the will of the late Mr. John Jones of Piccadilly. It will be remembered that this hospital was founded in 1868 by Dr. Arthur Hill Hassall, who devoted ten years to the realisation of his benevolent and important project. This Institution is placed in one of the most beautiful situations of the Undercliff of the Isle of Wight; it is founded on the separate principle, and consists of a series of well-planned houses facing due south, each patient being provided with a large airy bedroom, and the whole institution is conducted rather on the plan of a series of private dwellings than of one large building. The advantages of this system have been universally recognised, and the results of treatment have been most successful and encouraging. From the day on which the first block of houses was open for the reception of patients, the hospital, which accommodates 100 persons, has been kept full winter and summer, and although the committee of management have had to work hard to obtain the funds requisite for its maintenance, these have hitherto always been forthcoming. With Mr. Jones's munificent legacy, the utility of the hospital will no doubt be greatly increased. The full plan of the Institution has not yet been wholly realised, and subsidiary houses are much needed for the reception of some of those cases which cannot longer be retained in the hospital proper, and there is also great need of a well-organised out-patient department. The success which has attended the National Hospital for Consumption and Diseases of the Chest, and Mr. Jones's noble gift, must be a source of great gratification to the founder, Dr. Arthur Hill Hassall.

THE INFLUENCE OF POSTURE ON THE PULSE.

THE influence of posture on the frequency of the heart's action, pointed out as long ago as 1732, by Bryan Robertson, has never been satisfactorily explained. It has been ascribed to the difference in the state of the muscles in the upright and recumbent posture, but most authorities are inclined to accept the explanation which has been given by Marey, that the retardation of the pulse in the recumbent posture is the result of a general increase in the blood pressure, due to the difficulty the heart has in emptying itself in that position. The latest writer on the subject, Schapiro, of St. Petersburg, also comes to the conclusion that the result must be ascribed to an alteration in the pressure within the heart and vessels. He found that the blood pressure within the radial artery is demonstrably higher in the horizontal than in the vertical position, and then examined the effect on the pulse-frequency of alterations of posture when the femoral artery is compressed just above Poupart's ligament. From his observations he concludes (1) that the difference in the frequency of the pulse in healthy men between the horizontal and vertical posture may amount to from one to thirty beats per minute. In the horizontal posture the pressure within the heart and arteries is two to three millimetres higher than in the upright position. In the recumbent posture compression of the femoral artery, which increases the arterial pressure, lessens the pulse frequency. In heart disease, so long as the lesion is compensated, posture has the same effect on the pulse as in health. If, however, compensation is imperfect, the horizontal posture does not lessen the frequency of the pulse, and may even increase it. Schapiro thus differs from Graves, who was inclined to regard the absence of the normal effect as an indication of cardiac hypertrophy. In some general diseases, also, as typhus, the pulse frequency is not lessened either by the horizontal posture or by compression of the femoral artery.

SAFETY OF THEATRES.

PENDING the report of the Fire Brigade Committee on the subject of the safety of theatres from fire, it is desirable to point out that calculations as to the time in which theatres *can* be emptied are usually wide of the mark. The practical question is, what *will* happen in moments of panic. It is useless to count on the slightest modicum of common sense on the part of an audience. If any self-possession chance to be retained by the crowd in a theatre when a cry of fire is raised, this must be treated as an exceptional circumstance. The panic-stricken multitude will simply make a rush, and if it be possible for the foremost in the stampede to fall, they will fall, and the others will either continue their headlong course over their prostrate bodies, or will be kept back by the block. It is not only idle, but misleading, to look at the problem of emptying a theatre from a commonplace standpoint. The way an audience behaves when there is no panic can afford no possible inkling of the way in which it will behave when scared. If, therefore, it be the fact, as alleged, that Captain Shaw and his assistants are simply watching the exits of theatres on ordinary nights, and basing their calculations on what *might* be accomplished if the egressing crowd retained its wits, the report likely to be issued will not be worth the paper on which it is written. We beg to enter this protest by way of warning in time.

THE CHARLES MURCHISON SCHOLARSHIP IN CLINICAL MEDICINE.

THE first examination for this scholarship, which has been instituted as a memorial of the late Dr. Charles Murchison, will be held at the Royal College of Physicians, on Friday, April 21st, at 4 o'clock. The scholarship will be competed for alternately in London and Edinburgh, and is intended to attract such candidates as have already distinguished themselves in clinical medicine in their respective schools. It is thus hoped that the title of Murchison Scholar will indicate very exceptional merit in the possessor of it. It will be seen by the advertisement in our current number, that candidates are required to have studied either in London or Edinburgh, and only in such schools as are recognised by the Royal College of Physicians of London or by the University of Edinburgh.

THE COST OF MAINTENANCE OF LUNATICS.

IT is pleasant, because it seems to presage the dawn of public enlightenment, to find meetings of ratepayers engaged with the practical question of the cost of building colossal asylums for "the insane," and maintaining these persons in idleness. "The insane" in this country represent a class of persons, the members of which range from merely eccentrics and rather silly folk to the actually and dangerously mad, from whom society needs to be protected. Certainly, a very considerable proportion of the present inmates of asylums would do no mischief, but some good, out of those establishments, and the rates would be relieved proportionately. The ignorance which prevails as to the actual cost of maintaining "lunatics" is remarkable.

WHAT IS ACONITIA?

IT has been asserted in the columns of a contemporary that English aconitia is not identical with the German, and it is said that they differ not only in general characters and chemical composition, but also in their effects on the system. This is undoubtedly true; in fact, nearly a dozen different kinds of aconitia are recognised, varying so much in their properties that observations made with any one of them would be applicable only to that particular specimen, and not to the others. It is generally admitted that English aconitia is seventeen times as strong as the German, but it is not uncommon to find one specimen seventy times as active as another. This discrepancy arises not only from differences in the mode of extracting the alkaloid, but also from want of care in the selection of the plants. In the British Pharmacopœia it is directed that the Aconitum napellus should be used, but there is only too much reason to fear that other species are not unfrequently substituted. Some manufacturers use Aconitum paniculatum, which is almost inert; whilst others, for the sake of obtaining a more active product, employ the Aconitum ferox, the deadly Bish poison of India. Much of the aconite root now in the market is not the root of our common monkshood, but is obtained from Japanese plants of undetermined species. Some specimens of aconitia are white, some are yellow, some are crystalline, and others are amorphous. It is stated on good authority that the commercial aconitia is not an alkaloid at all, but is a mixture of several different alkaloids or active principles. The whole question is still *sub judice*, and all statements respecting the properties, chemical or physiological, of aconitia, must be accepted with a certain amount of reservation.

TRAMWAY CARS.

IT has been suggested that, looking to the large number of accidents that have occurred by the knocking down and running over of foot-passengers by tramway cars, these vehicles should be fitted with a protecting apparatus—something like the bullock-fenders of American railway locomotives, we presume. It must not be forgotten that tramcars do not travel so steadily on their rails as do the engines and carriages on permanent railroads, and unless special precautions were taken, it would only complicate matters to adopt the guards recommended. We are not opposed to the application of the principle, and the adaptation of a fender; but it should be one which would not become of itself a source of injury. It must be so constructed as to prevent the possibility of its converting a mere stumble into a serious entanglement. Probably a rope netting guard would be the best apparatus for the purpose. Such a means of protection would not be difficult to devise.

PUERPERAL MORTALITY IN SPAIN.

THE excellent mortality statistics which are now issued monthly by the Spanish Government are sufficient proof that the sanitary condition of that country is fully under official observation, if not consideration. There is, perhaps, no feature of these statistics which speaks more decidedly of the necessity for sanitary reform in Spain than the recorded mortality from puerperal fever. It appears from a summary of the twelve monthly returns for 1881, that during that year the recorded deaths from puerperal fever were no fewer than 6530, and averaged no less than 12·5 per 1000 of the recorded births. It is quite possible that birth registration in Spain is somewhat incomplete, but due allowance for this defect would not materially affect the excess of mortality from puerperal fever. In England during the four years ending 1880 the deaths referred to all the accidents of childbirth, including puerperal fever, did not exceed four per 1000 births. The Spanish return does not give the mortality from all puerperal causes, but the recorded mortality from puerperal fever in 1881 was more than three times the recent mean-rate of mortality from all puerperal causes in England. In Madrid the death-rate from this cause was very considerably higher than the mean-rate in the whole of Spain. The deaths from puerperal fever in Madrid during last year were equal to 15·6 per 1000 births registered; and as the recorded birth-rate was equal to 37·5 per 1000 of the population, it would appear that the registration of births in that city cannot be very imperfect.

REMOVAL OF PATIENTS TO HOSPITALS SUFFERING FROM INFECTIOUS DISEASES.

DR. JAMES STEVENSON, of Paddington, has presented to the Public Health Committee of his vestry a very useful report on the more speedy removal to hospital of cases of infectious disease in the metropolis. A short time ago, in his "Report on the Fever Carriages of the Metropolis," he directed attention to the impediments which interfered with the quick removal of the infectious sick to hospital, the present arrangements continuing. Indeed, these arrangements seemed designed to cast as much difficulty in the way of removal as practicable, and to make the act of removal especially contributory to the spread of infection. Dr. Stevenson suggests in his present report, which has been adopted by the Sanitary Committee—(1) That the certificate of any registered medical practitioner, addressed to the Local Sanitary Authority, be deemed by the Metropolitan Asylums Board sufficient to procure the admission, if necessary, of any person suffering from one or other of the infectious diseases treated in the hospitals of that Board. (2) That removal to such hospitals be effected by the Local Sanitary Authority only, until the Metropolitan Asylums Board extends its ambulance arrangements, as contemplated, throughout the metropolis. (3) That the relieving officer of the parish be immediately informed by the steward of the hospital of every case so admitted. (4) That in the event of the above recommendations being adopted, a circular letter be sent to every medical practitioner in the parish informing him of the same, and that the vestry will pay, on application, a fee of 3*s.* 6*d.* for the certificate referred to in No. 1. (5) That the above recommendations be submitted forthwith to the Local Government Board and to the Metropolitan Asylums Board for their consideration and approval.

MIDWIVES' MIDWIFERY.

IT is said that above one million of births in Great Britain are annually attended by women only. When this statement is taken in connexion with the fact that midwives are not required, in order to practise, to give any guarantee of either general or special education and training, it may be considered startling. It would be well if all midwifery could be done by men. Whether we consider the arduousness of the obstetric work or the interests of the mothers, it is alike desirable that the women in labour and in the critical state which follows labour should be attended by men. The greater strength of men, and their full medical education, make this a distinct and a desirable advantage. But civilisation has not yet reached a point at which this is practicable. The poor cannot afford the advantage of medical attendance in labour in something like a million of cases. It is a pity that it should be so. But we must face facts. The only resource at present is to do what has been done in all other European countries—exact some test of training, of character, and of special education from midwives. Our own columns and those of the daily press show the terrible calamities that

occur in the absence of such a public law. We therefore support heartily a movement described in a letter elsewhere to found a Matron's Aid Society, the object of which is to provide a better class of midwives, and to afford them aid under trying circumstances.

FRENCH ARMY MEDICAL SERVICE.

WE learn with much satisfaction that the Chamber of Deputies has adopted that portion of the Army Administrative Bill, as sent back by the Senate, which relates to the organisation of the medical department. By it the medical staff will be made independent of the Intendance or Commissariat in everything except the supplies. It is true this is a very material exception if the officers of the Intendance are to have the power of refusing to comply with the requisitions of the medical officers, but should they do so without being able to assign good grounds for it, the medical officers, being no longer dependent upon them for promotion and almost everything else, will be able to make such remonstrances as will speedily put an end to unjustifiable or uncalled-for obstruction. We presume Dr. Marmottan must have had something of this kind in view when, after attributing the frightful amount of sickness and mortality in the African expeditions to the chronic conflict between the Intendance and the medical officers, he argued that the Bill would not really emancipate the latter. The Minister of War, however, declared that it would give them the professional independence to which they were entitled. Until the new regulations consequent upon this important change are brought out it is impossible to appreciate completely the advantages to be derived from it; but it is, at least, a step in the right direction, and we most sincerely congratulate our *confrères* on the favourable result of the long-continued struggle for their legitimate professional position.

FORMATION OF FIBRIN IN ANEURISMS.

THE usual theory in regard to the deposit of laminated fibrin in aneurismal sacs is that, from retardation of the blood stream and from loss of the endothelial lining, fibrin is deposited in a thin layer on the interior of the sac; this, again, excites further deposit, and thus successive laminæ are formed. Dr. Schmidt, of New Orleans, has published in a recent number of the *Annals of Anatomy and Surgery* a detailed description of a careful examination of a large fibrinous clot in a femoral aneurism. The whole clot was hardened, and then cut across in two planes, and examined microscopically as well as with the naked eye. His chief result is that the fibrin is not laid down in concentric laminæ so much as in overlapping columns and ridges crossing each other obliquely, while numerous white corpuscles are to be found in the spaces between the fibrinous bands. His explanation is somewhat remarkable: "As soon as a disproportion takes place between the relative size of the sac and the orifice in the wall of the artery, a portion of the blood will be retained in the former and lead to the formation of a passive clot, which enlarges in due proportion to the enlargement of the sac. Then the aneurismal circulation assumes the form of a thin wave or sheet of blood, penetrating between the passive clot and the internal surface of the wall of the tumour. As soon as the blood has to pass between a passive clot and the internal surface of the sac, the fibrin must become deposited" so as to lead to the formation of ridges and columns, which Dr. Schmidt compares to the ridges left on a sandy beach by successive waves. The accurate description of the case in point it is impossible to call in question, but it is very doubtful indeed whether blood-clot plays so important and constant a part in the deposit of fibrin in aneurism as the writer asserts.

A THIRD NOTIFICATION OF INFECTIOUS DISEASES BILL.

STILL another Notification of Infectious Diseases Bill. England has got one Bill before Parliament, Ireland another, and now the sister island proposes to promote a third. This Bill has some notable differences from the previous Bills. It casts the responsibility of notification entirely upon the householder or person in charge of the infectious sick, under a penalty of imprisonment not exceeding two months, or of a fine of not more than five pounds, and it leaves it optional to the medical attendant whether he notifies or not; and if he elects to notify, it provides that the notification shall be as cumbrous as practicable. First, he shall notify to himself that he has notified, next he shall notify to the sanitary authority, and, lastly, he shall notify to the householder, or person in charge, that he has notified; and for this three-barreled certificate the medical attendant will be entitled to claim from the sanitary authority a fee of two shillings and sixpence. The householder is merely required to furnish a single certificate to the sanitary authority. But the Bill further improves upon existing Bills in the matter of diseases to be notified. Previous Bills, consistently with the general public-health law, limit their provisions to dangerous infectious diseases. But the promoters of this measure have included among the diseases coming within its operations "varicella or chicken-pox." The Bill has been adopted by the Council of the Irish Medical Association and by the Dublin Branch of the British Medical Association. Is it that chicken-pox becomes a grave affection across St. George's Channel, or that there is fear that the time of the medical officer of health should not be sufficiently occupied?

THE LATE DR. GEORGE BUDD, F.R.S.

DR. GEORGE BUDD, formerly of Dover-street, Piccadilly, died on the 14th inst., at his residence, Ashleigh, Barnstaple, North Devon, in the seventy-fifth year of his age. Dr. Budd, who was one of a family distinguished in medicine, was for many years Professor of Medicine and physician to King's College Hospital, having a large practice in Dover-street, Piccadilly. He was deservedly well-known by his excellent work on Diseases of the Liver, which went through three editions, and also by his other work on Organic Diseases and Functional Disorders of the Stomach. He was also for many years physician to the *Dreadnought* Hospital. Dr. Budd graduated M.D. Cantab. in 1840, having previously obtained the high position of third wrangler in the Mathematical Tripos, 1831, becoming a Fellow of the Royal College of Physicians in the following year, a Censor in 1845–46–47 and 1862. Dr. Budd for some years held a Fellowship at Caius College, and about two years ago was elected to an honorary Fellowship at the same college.

PUBLIC MORTUARIES AND INQUEST-ROOMS.

THOSE districts which are not already provided with proper mortuaries and inquest-rooms should be compelled to provide them. It is scandalous and perilous to the public health in populous districts to allow the bodies of the poor to lie for days in crowded tenements, and to compel medical men to make post-mortem examinations under the insanitary conditions which exist. Only those who have performed many such operations in the midst of hideous squalor, and without even those conveniences which common decency requires, can realise the full extent of the evil and its danger. It is, of course, impossible that an examination made under the conditions which prevail in many districts can be so made as to lead to a satisfactory result. The organs cannot be examined in detail, and the whole proceeding must be hurried over,

while in cases of mysterious death and in medico-legal cases the only practicable mode of scrutiny is inadequate to the grave issues at stake. This is one of the matters in regard to which local authorities need to be compelled to take action.

PETITIONING AGAINST THE TOTAL ABOLITION OF VIVISECTION.

AS is well known, Mr. Reid, M.P. for Hereford, has announced his intention of introducing into Parliament a Bill for the total abolition of vivisection. The members of the profession in Hereford city and county have felt called upon to express their strong disapproval of any such measure, and have drawn up a petition to Parliament against it, and this has already received over seventy signatures. The petition sets forth that great practical advantage has arisen from experiments upon living animals; that at the present time such experiments promise very rich results, particularly in the comparatively new inquiry into the vital conditions and properties of micro-organisms; and that in this country this form of liberty has not hitherto been abused. It prays that the present law may be repealed, or so altered as to "allow all properly qualified persons full liberty to conduct physiological and pathological experiments on living animals."

BIRMINGHAM WORKHOUSE INFIRMARY.

DR. MOUAT has lately been making an investigation into the medical administration of the Birmingham Workhouse. In the course of the inquiry it transpired that at the present time there are upwards of 1100 patients in the infirmary, the class of cases being of a varied character, including a large proportion of epileptics and imbeciles. To this great number of patients the services of but three resident medical officers are devoted, and the duties of these gentlemen are necessarily onerous and responsible. Dr. Mouat pointed out to a committee of guardians, met to receive his report, the practical impossibility of the necessary amount of attention being devoted to each individual case by the present small staff of medical officers, and advised an increase in their number. The inadequacy of the nursing staff was also commented upon, and the employment of aged paupers as night attendants in the sick wards much deprecated.

DEATHS OF ARMY SURGEONS.

WE regret to announce the death, at Agra, East Indies, of Surgeon Francis E. C. Hood, Army Medical Department. Mr. Hood was educated at Guy's Hospital, obtained his commission in March, 1880, and proceeded to India in the following autumn. His death was due to remittent fever.—Intelligence has also been received of the decease, at Kinsale, on the 10th inst., of Surgeon-Major M. J. Ryan, Army Medical Department. Mr. Ryan entered the service in March, 1866, and became Surgeon-Major in October, 1878. The cause of his death was bronchitis.

GASTRIC DIGESTION.

M. GAUTIER has been engaged in investigating the soluble and insoluble modifications of the ferment of the gastric juice. He finds that the liquefaction of fibrin is very rapid, even at ordinary temperatures, when in contact with the insoluble particles of the juice, but these do not appear to be able to effect its complete digestion. The digestive process ceases at a certain stage, at which stage it remains stationary, however long the fibrin may remain in the liquid. It is characterised by the formation of intermediate compounds, which are precipitable by nitric acid, but which partially redissolve in an excess of the product of digestion or in an excess of acid. These particles thus represent a very active but insoluble form of pepsin, which is only capable of causing albuminoids to assume an intermediate state between albumin and pepton. The action of these corpuscles is not interfered with any more than that of pepsin itself by considerable doses—say one-half per cent.—of hydrocyanic acid, which entirely destroys the life of vibriones and of all morphological ferments.

LEAD POISONING FROM THE LINING OF COOKING UTENSILS.

COOKING utensils are frequently coated with a mixture of tin and lead, instead of with pure tin. The alloy is more easy to apply, and is somewhat cheaper; but considering how poisonous lead is, how great a tendency it has to accumulate in the system, and the ease with which it is dissolved under suitable conditions, the practice cannot be too severely reprobated. We have seen "tinned" copper vessels the tin of which would actually mark paper. Of course such a metal would readily be corroded by weak acids, and even by rain-water. It has, in fact, been very recently shown that the "tin-lined" and "tin-washed" lead-pipes, so excellent in principle, are somewhat imperfect in practice. Melted tin, applied to the surface of lead, forms an alloy so quickly that water is able to dissolve lead from the inside of the pipe, although, of course, in less quantity than from pure lead.

THE EARLY CLOSING MOVEMENT.

THE Early Closing Association has our sympathy in its work, and we are glad to observe proofs of its increasing activity; but we must be pardoned for suggesting that the enterprise is not so much one for self-help as for legislative enactment. If all the shopkeepers of a district *agree* to close early, either there will be some one false to the undertaking, or a stranger will open an establishment in the locality, and thus, in time, compel the older shops to re-open. We see no solid ground for confidence in the movement unless it takes the form of an endeavour to persuade Parliament to pass a measure which shall have the effect of making early-closing an act of good citizenship.

THE following is the form of address agreed to at the annual meeting of the Royal Medical and Chirurgical Society for presentation to Her Majesty:—"To the Queen's Most Excellent Majesty our Royal Patron: Madam,—We, the President and Council, on behalf of the Fellows of the Royal Medical and Chirurgical Society of London, ask permission to declare our sorrow and indignation at the recent alarming outrage committed against your most gracious Majesty; and we desire to express our heartfelt thankfulness at your Majesty's providential escape from great peril, and our loyal and fervent wishes for your Majesty's continued safety and welfare. Signed on behalf of the Society, John Marshall, President."

A STANDING medical board has been constituted at Bombay, to report weekly on the amount of cholera in the city. This step has been taken with the view of attempting to procure the removal of the very harassing and vexatious quarantine restrictions now imposed in Egypt on arrivals from Western India.

DR. J. D. THOMAS, of Adelaide, is engaged in researches, in which he is assisted by the Governments of South Australia and Victoria, with the object of proving the truth of his theory that the prevalence of hydatid disease in human beings and the lower animals is proportionate to the number of dogs kept in a community.

MR. R. H. WOOD, of Rugby, has intimated his intention to confer a princely gift on the inhabitants of the town. The benefaction will consist of a freehold site of ten acres, a new hospital to accommodate thirty patients, and an ample endowment to maintain the institution in efficient working order, the estimated value of the whole being £30,000.

THE deaths are announced of Dr. Joseph Pancoast, Emeritus Professor of Anatomy in Jefferson Medical College, and Dr. Erasmus Darwin Force, President of the Faculty of the Hospital College of Medicine, Louisville, U.S.A., and Emeritus Professor of Diseases of Women.

DR. GEORGE W. CAMPBELL, Dean of the Medical Faculty of McGill University, has (says the *Canada Journal of Medical Science*), by the death of his brother in Scotland, become heir to an old baronetcy.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Liverpool, Port.—Dr. Stopford Taylor in his report for this port in 1881 notes with gratification "the willingness of owners and masters to comply with all suggestions for the promotion of the sanitary condition of their vessels, and that it has not been necessary to take legal proceedings in one instance." The number of vessels, steam and sailing, which entered the port in 1881 was 20,199, of which 14,748 were coasting vessels and 5451 were foreign traders. Of the total number 5077 (1900 steamers and 3177 sailers) were inspected, 4657 being found in a good sanitary condition, and 420 having the following defects: 200 required the forecastles, peaks, and cabins thoroughly cleaning out, and painting or lime-washing; in some few cases partial refitting was also required. In 124 vessels there were faulty bulkheads, in 86 defective ventilation, in 90 faulty closets, and in 11 the deck over the forecastle required caulking. "With respect to the sanitary state of the vessels," Dr. Stopford Taylor remarks, "those in the coasting trade are much better kept and in better condition than formerly. The French, Spanish, Italian, and Russian are crowded and lumbered up; the German, Danish, Norwegian, and Swedish are the best kept of foreign vessels, whilst the American, as a general rule, are the cleanest afloat.... The British ships and steamers, more especially those at Liverpool, are in excellent order." Several cases of small-pox were introduced into the port by vessels coming from United States ports, and one case of small-pox from Bilboa. Among other cases of infectious disease introduced were scarlet fever and measles.

Kensington (Metropolis).—Dr. Dudfield reports for the month of January deaths equivalent to an annual rate of 19·9 per 1000 living. Of zymotic diseases he says, that for the first time in several months the deaths from the principal zymotic diseases were considerably above the corrected decennial average—a fact due entirely to an epidemic of whooping-cough, and he has the following observations on the fatal complications of this disease: "Now, whilst I have no doubt that in some cases the most common complications—e.g., chest diseases, which were the immediate cause of nineteen of the deaths—are unavoidable, I am still of the opinion that the secondary diseases are often due to want of care in the home treatment of the sufferers, though I by no means would imply that such want of care proceeds from indifference, still less from unkindness. The little ones are not, perhaps cannot be, confined to a single room kept at an even temperature; they catch cold; the 'cold' and the 'cough' are not differentiated by the parents. Medical treatment is not sought, it may be, until the child is obviously very ill; and when it is obtained, the child may be found to be beyond the reach of help."

Whitechapel (Metropolis).—Mr. John Liddle, in his report for the fourth quarter of 1881, gives attention to certain improvements he has been able to make in his arrangements concerning the disinfection of infected bedding, clothing, &c., to the overcrowding of school-rooms of young children (an instance of which he describes), the retention of dead bodies in rooms occupied by families as living and sleeping rooms, and to the want of a proper mortuary in Whitechapel.

Barnsley (Rural).—Dr. M. T. Sadler reports for this district, during 1881, a death-rate of 16·78 per 1000 persons living, excluding the workhouse, and, including the workhouse, a death-rate of 17·27. The birth-rate for the year was 42·10 per 1000. The death-rate is the lowest observed since the district was formed. The most noteworthy infectious diseases prevalent during the year were scarlet fever and enteric fever. "We have also had outbreaks of measles at Carlton in June, and at Ardsley in July," writes Dr. Sadler, "which we dealt with as far as possible by isolation of patient and friends; but this disease is so infectious amongst children who have not already had it, and so little regarded as serious by parents generally, that our efforts were not crowned by any very remarkable success. Fortunately, however, there were no deaths in any part of the district from this complaint." Neither scarlet fever nor enteric fever declared itself in any distinct outbreak; but in some parts of the district occasion was found to amend its chronic cause of nuisance. "In different parts twenty-four old privies have been entirely rebuilt on an improved plan, and about sixteen have been put in a more satisfactory condition by having their ashpit floors raised, and coverings provided, to exclude the rain."

Cork.—During the month of February the total number of deaths amounted to 172 (including 27 dying in the workhouse, and therefore outside the borough, persons who formerly had resided in the city); of these, 9 were due to infectious maladies, and 19 were infants under one year. There were 206 births registered during the four weeks. The annual death-rate per 1000 inhabitants gives a total ratio of mortality of 28·53; but deducting the deaths occurring in the workhouse, the urban death-rate was equal to 23·92; from infectious maladies, 1·4; an infant mortality of 3·1; and a birth-rate of 34·17. Dr. Wall, medical superintendent officer of health, states that these figures show a somewhat increased urban mortality as compared with last month—probably due to atmospheric influences. A decided diminution of fever cases has taken place, 44 having been officially reported, as compared with 58 in January.

NORTH DUBLIN UNION.

Dr. McCabe, Local Government Board Inspector, in his half-yearly report, states that in some respects the mortality appears to have been influenced by the unfavourable condition presented by a crowded site, and wards filled to the extent of absorbing day-accommodation for sleeping purposes. The total number relieved during the six months amounted to 6137, the deaths to 302, a rate of mortality equal to 49 per 1000. Measles caused 25 deaths, or a mortality at the rate of 35·7 per cent. on the cases treated. Of the 36 children born in the workhouse 9 died, a rate of infant mortality equal to 25 per cent. during the first six months of life. Dr. McCabe is also of opinion that the drinking water-supply, drawn from the canal, may have an unfavourable effect upon the health of the inmates; and he suggests, that as the Vartry mains are actually on the premises they might be tapped for drinking and cooking purposes only.

ANIMAL VACCINE.

By printed notices issued to all the registrars of births and deaths throughout the metropolis parents of children registered are informed that, instead of being compelled to have their children vaccinated in the ordinary manner, they can now have them vaccinated at their option with animal lymph, if they choose to go to the stations assigned to the public vaccinators acting under the instruction of the Local Government Board, the addresses of which are given, with the names of the vaccinators appointed for the purpose.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns, 5887 births and 3699 deaths were registered during the week ending 18th inst. The annual death-rate in these towns, which had steadily declined in the five preceding weeks from 29·8 to

24·0, further fell last week to 22·8. The lowest death-rates in these towns last week were 13·3 in Portsmouth and Halifax, 17·3 in Salford, and 17·4 in Leicester. The rates in the other towns ranged upwards to 28·4 in Blackburn, 30·3 in Bolton, 30·7 in Manchester, and 33·7 in Nottingham. The deaths referred to the principal zymotic diseases in the twenty-eight towns were 585, and corresponded with the number in the previous week; 201 resulted from whooping-cough, 153 from measles, 85 from scarlet fever, 60 from "fever" (principally enteric), 52 from diarrhœa, 23 from diphtheria, and 11 from small-pox. The lowest death-rates from these zymotic diseases occurred last week in Birkenhead and Huddersfield, and the highest in Bolton and Brighton. Whooping-cough showed the largest proportional fatality in Brighton and London; measles in Bolton, Blackburn, Preston, and Brighton; scarlet fever in Hull and Nottingham; and "fever" in Bristol, Derby, and Cardiff. The 23 deaths from diphtheria in the twenty-eight towns included 13 in London, 2 in Portsmouth, and 2 in Leeds. Small-pox caused 10 deaths in London and its suburban districts, and one each in Bolton, Manchester, and Leeds. The number of small-pox patients in the metropolitan asylum hospitals, which had steadily declined in the eight preceding weeks from 504 to 390, had further fallen to 373 on Saturday last. The new cases of small-pox admitted to these hospitals rose, however, again last week to 60, from 45 and 47 in the two previous weeks. The deaths referred to diseases of the respiratory organs in London, which had been 470 and 473 in the two preceding weeks, declined to 397 last week. The causes of 83, or 2·2 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Bristol, Preston, and in four other smaller towns; while the proportions of uncertified deaths were largest in Bolton, Salford, Blackburn, Hull, and Sunderland.

HEALTH OF SCOTCH TOWNS.

The annual death-rate in the eight Scotch towns, which had been equal to 21·6 and 23·6 per 1000 in the two previous weeks, declined again to 21·7 in the week ending the 18th inst. The deaths referred to the principal zymotic diseases, which had been 77 and 75 in the two preceding weeks, rose last week to 92; of these, 27 resulted from diarrhœa, 24 from whooping-cough, 15 from measles, 10 from diphtheria, 8 from "fever," and 8 from scarlet fever. The annual death-rate from these zymotic diseases was equal to 3·9 per 1000. The zymotic death-rate in the eight Scotch towns ranged upwards from 1·8 and 2·5 in Edinburgh and Dundee, to 5·2 and 8·6 in Glasgow and Perth. The deaths attributed to diarrhœa were again excessive, and were equal to a rate more than three times as high as that referred to the same cause in the English towns. The 24 fatal cases of whooping-cough also showed a further increase upon recent weekly numbers, and included no fewer than 18 in Glasgow. Six of the 10 deaths from diphtheria, and 5 of the 8 from scarlet fever, were also returned in Glasgow. The 15 deaths from measles showed a considerable increase upon recent weekly numbers. The 8 deaths referred to "fever" corresponded with the number in the previous week. The 114 reported deaths from acute diseases of the lungs in the eight towns were 50 below the number returned in the corresponding week of 1881. The deaths of infants in the eight towns showed a decline, but were excessive in Dundee.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 35·1 and 37·2 per 1000 in the two preceding weeks, declined to 31·2 in the week ending 18th inst., which was a lower rate than has prevailed in any previous week this year. During the first eleven weeks of the current quarter the death-rate in the city averaged no less than 35·1, against 26·0 in London and 19·9 in Edinburgh. The 208 deaths in Dublin last week showed a decline of 40 from the high number in the previous week; 31 were referred to measles, 5 to "fever," 3 to scarlet fever, 3 to diarrhœa, 1 to diphtheria. Thus 43 deaths resulted from these principal zymotic diseases. The fatal cases of measles in Dublin, which had been 27 and 31 in the two previous weeks, rose again to 31 last week. The 5 deaths referred to "fever" were within 3 of the number in the previous week, and those of scarlet fever showed an increase; those attributed to diarrhœa rose again above the average. The deaths of infants were again excessive, while those of elderly persons were fewer than in any previous week of this year.

THE SERVICES.

MEDICAL OFFICERS' MESS AT WOOLWICH.

The Secretary of State for War has sanctioned the building, formerly used by the Commissariat Department at Woolwich as a mess, being handed over to the officers of the Army Medical Department for a similar purpose, and a committee of officers are arranging for a Medical Department mess, to be shortly established.

Surgeon-Major J. Parr and Surgeon J. N. Purefoy are on passage from India in H.M. troopship *Jumna*, which left Bombay on Feb. 25th for Portsmouth.

Surgeon-Major William Johnston, Army Medical Department, will command the Volunteer Bearer Company at the forthcoming Volunteer Review at Portsmouth on Easter Monday.

ARMY MEDICAL DEPARTMENT.—Brigade Surgeon St. John Stanley has been granted retired pay, with the honorary rank of Deputy Surgeon-General.

RIFLE VOLUNTEERS. — 2nd Essex: Acting Surgeon Ebenezer Shedd to be Surgeon.

ADMIRALTY.—Staff Surgeon Matthew Coates has been promoted to the rank of Fleet Surgeon in Her Majesty's Fleet, with seniority of March 9th, 1882.

The following appointments have been made:—Staff Surgeon Robert H. More, M.D., to the *Swiftsure*; Staff Surgeon Thomas Bolster, to Plymouth Hospital, vice More; Surgeons Henry L. Crocker and George F. Wales, to the *Swiftsure*; Surgeon Standish T. O'Grady, to Plymouth Hospital, vice Crocker; Surgeon Horace F. Browne, to the *Valiant*, vice O'Grady; Surgeon James A. Vasey, to the *Excellent*, vice Bolster; Surgeon Charles Andersen, to the *Pioneer*; Fleet Surgeon Edward T. Mortimer, to the *Duncan*, additional, for service at the Royal Marine depôt, Walmer, vice Anderson; Surgeon John Jennings, to the *Grappler*, vice Twigg; and Surgeon William H. Patterson to the *Asia*, vice Jennings.

Correspondence.

"Audi alteram partem."

"THE CAUSE OF THE DUCHESS OF CONNAUGHT'S ILLNESS."

To the Editor of THE LANCET.

SIR,—I hope and believe that the letter of Dr. Playfair will assist in calling the attention of the public to a matter of extreme importance, and that thereby it will assist in lessening the number of the cases of which the responsibility and sometimes the blame has to be borne by members of our profession. However, as far as my opportunities have enabled me to form an opinion, I should consider that our profession, as a body, is more alive to the importance of attending to the house-drainage in relation to lying-in than Dr. Playfair would think; and, indeed, the recognition of this importance is the natural outcome of the advance of sanitary knowledge, and the frequent discussions on puerperal fever, pyæmia, and other abnormal conditions attending the lying-in, and as far as I have discussed the question with my brethren, it seemed to me that they have pretty generally understood that the law, applicable to the wounded, to those about to undergo or undergoing operations, and to those smitten with illness of all kinds, was equally applicable to the women about to be delivered or lying-in—namely, that unhealthy surroundings of various kinds all tended to interfere with recovery in various degrees, even to its total impossibility; and that bad drainage stood foremost among the evil influences, either indirectly, as a producer of zymotic diseases, or, indirectly, as an initiator of septic changes and all the immediate and secondary phenomena resulting.

So long ago as 1870 I called attention to this subject in a paper read before the Obstetrical Society, London (vol. xii.), in which I examined eighty-nine cases of so-called puerperal disease after simple labour in respect of the "causes." This was five years before the discussion alluded to by Dr. Playfair (in the seventeenth volume of the same Transactions), a few remarks from which it may not be out of season to quote:—"But, however frequently the cause of puerperal diseases may be owing to zymotic influences, still, it is easy to understand that imperfect drainage, close rooms, and bad dwellings would be sufficient by continued action to produce such a state of constitution as would tend to effusions, suppurations, pyæmia, and peritonitis. ..... But I believe the truth may be thus stated: that in ordinary health and with freedom from deteriorating influences, injuries and local disturbances done by parturition, or by assistance given to it, are recovered from; but if any poison or depressing influence invade the pregnant or labouring women, then in addition to the direct influence of a poison, inflammation or suppuration of the parts occurs, which, by the local distress they cause, may set up pyæmia, thrombosis, &c. There is one fact not mentioned in the reports, but which is worthy of notice—namely, that I have found the whole class more frequently in newly built than in older houses. It might be that the frequency of puerperal diseases in primiparæ may account for this, inasmuch as the newly married more usually take newly built houses. But it is also a fact that the inmates of new houses are more liable to be attacked by scarlet fever, typhoid, diphtheria, &c.; and this, I believe, may be well accounted for by the fact that the drains of new houses are more liable after a short tenancy to be deficient. I think, as regards the married middle class about London, this latter explanation forms a more valid explanation than the fact that primiparæ are more frequently confined in new houses."

Dr. Lloyd Roberts, in his "Practice of Midwifery" (1875), states the same concisely:—"The various malarious exhalations from imperfect drainage, want of cleanliness, and ventilation, with other nosocomial influences, are so many other means of producing toxæmia."

In the cases above alluded to I report one where there had been four cases of typhoid in the same house and family, one child being ill on the woman's bed. I trust that the public will now be induced to look into the matter for themselves, and not throw upon their doctor the unpleasant task of doing what the surveyor, clerk of the works, or architect should have done.—I am, Sir, yours truly,

J. BRAXTON HICKS, M.D. Lond., F.R.S,

George-street, Hanover-square, March 20th, 1882.

To the Editor of THE LANCET.

SIR,—On page 447 of THE LANCET of this week you say with regard to the defective drains at Bagshot Park that "the professedly sanitary constructors are, if possible, the least to be trusted." I must confess that I do not quite understand the intended scope of these remarks, and it might seem invidious if I gave my own impressions as to their meaning. Sanitary constructors are usually engineers or surveyors who practise specially in devising and executing main sewering and house draining, and are not medical amateurs, some of whom claim alone to have the knowledge, experience, and right to devise, dictate, and direct sanitary works, and to carry on subsequent inspection. Medical men most certainly ought to study sanitary science just as they should study the science of dentistry or any other speciality, but they had better leave sewering, draining, and ventilation to the specially educated sanitary engineer, and not set their superficial judgment against his practical knowledge and experience. The system of drains found to be defective at Bagshot Park were not designed by a sanitary engineer, but by the architect who designed the house, and who is now dead. The drains were laid by the builder. The work is, however, now in the hands of a professedly sanitary constructor, Mr. Rogers Field, and I for one feel contented to abide the outcome and ultimate result of his labours. Correct principles as to how houses should be drained have been worked out and put into practice, and examples may be inspected by those willing to learn from the work done and in operation rather than from books. Spencer House, St. James's, has been perfectly drained, Christchurch College, Oxford, also, and both Claremont and Bagshot Park, when the works in progress have been completed, will be perfectly drained. Stratton, Hants, the seat of Lord Northbrook, has been perfectly drained, and there are many other places in various parts of the country of which the same may be said—namely, that the houses are well drained. There is, in fact, a school of sanitary engineers who are not blundering in darkness. But it must be remembered that these gentlemen are not architects; they do not design and build houses, and up to this time are rarely if ever consulted, unless, as in this unfortunate case of Bagshot Park, the drains are found to be defective.

The results from defective house-drainage are occasionally found to be so deadly that we may fairly anticipate that in future a gentleman about to build a new house will insist upon having absolute assurance that the system of draining and sanitary appliances generally has been well designed, and that on completion the same has been truly and well executed. The house-drains at Bagshot Park were, for the most part, of proper material, of suitable dimensions, outside the main walls, and were also laid upon correct principles; but, unfortunately, one rule (the prime rule) was broken—namely, that drains should not be laid within, nor open within, any house basement. The drains in fault are within, and did open within, the house basement, permitting sewage gas to pervade the basement; hence the very serious mischief resulting. But as to the prompt removal of the Duchess, and the subsequent operations now going on to make the place safe in future, Sir W. Jenner and Dr. Playfair may be thanked most heartily by the entire nation for their prompt and sagacious intervention; and when medical men in general act with the promptitude, knowledge, and authority of these eminent doctors a more general improvement may be expected, and the professed sanitary constructors may have awarded to them some fraction of credit.

I am, Sir, yours obediently,

ROBERT RAWLINSON.

Lancaster Lodge, Boltons, West Brompton, March 15th, 1882.

ANOTHER EXTRAORDINARY MORPHIA CASE.

To the Editor of THE LANCET.

SIR,—I dare say a great many medical men have had cases similar to that of Dr. Percy Boulton, reported by him in last week's LANCET, under the heading of "An Extraordinary Morphia Case," although they may not have been so successful as he was in weaning the patients from, and dispensing with, the use of morphia. The only cases I have seen in which such has been successfully accomplished are those in which the parties have suffered some acute illness, which renders them more or less delirious, &c., and by the morphia being withheld during such illness the patients have been got to gradually dispense with its use. I think it would be very interesting to know how much morphia patients can really have hypodermically used without danger. I myself have had at least six cases where enormous morphia injections were constantly used for years; but the most remarkable one was that of a widow lady, aged about forty, who was suffering from cancer uteri, and whom I had attended for some years. During the last year and a half of her illness my brother Henry and myself injected never less than three times a day, and frequently four times in the twelve hours, thirty drops of Bell's morphia (double the strength of the British Pharmacopœia) at each visit, and sometimes, when the patient needed it, one hundred and twenty minims a day—that is to say, twenty grains of morphia in the twelve hours, and frequently suppositories of morphia during the night. In this case I tried various things as substitutes in order to reduce the use of morphia; and acting on the suggestion of Mr. Spencer Wells, who occasionally saw the patient, I tried the solution of atropia by itself, and mixed with morphia, also soothing draughts—chloral, bromide,—suppositories, &c., but all of no avail. Morphia seemed the only thing that kept the patient alive and made her feel for the time comfortable. She gradually sank at last from frequent attacks of bleeding, and during the last few days of her life nothing but the solution of atropiæ, as she became very delirious and convulsed. I find that American ladies, or English ladies who have been treated in America, especially are in the habit of using morphia (hypodermically) themselves; and this rather leads me to suspect that morphia is more used by our brother professionals in America than by us English

doctors. In conclusion, I must say that if anyone could suggest any remedy (except stimulants) equally relieving as morphia injections, and so keep patients from the use of the latter, it would be a great boon to humanity.

I remain, Sir, yours obediently,

St. George's-road, S.W., March, 1882. W. C. CASS.

P.S.—On looking at my notes I find that during the last thirteen months of my patient's life my brother or myself used the hypodermic needle 1350 times, and nearly always inserting each time twenty-five to thirty drops of Bell's morphia solution (equal to five grains), and occasionally Martindale's was used, of the same strength.

"CONGENITAL SACRAL FISTULÆ."

To the Editor of THE LANCET.

SIR,—Your remarks in THE LANCET of February 11th, p. 243, upon the above subject, have reminded me that I have had under my care for some years a child presenting this peculiarity. She is a strong, healthy girl, aged four years, and the depression is situated just above the inferior termination of the sacrum. The sacrum seems to terminate in a sort of knob, and I cannot recognise the usual coccygeal sharp point at all, nor is the knobby extremity at all movable. Just above this knobby termination is situated the so-called fistula. It is nearly a centimetre in depth, of calyciform shape, and appears to be separated from the bone, at its inner end, only by thin skin. It is impossible to evert the whole depth of it. The interesting point in this case is that the child has a spine which is bifid in the lower lumbar region, with the usual tumour, and paralysis from implication of the nerves of the cauda.

The mother of this child has three other children, of which number two were born before and one after her. They have not any trace of sacral fistulæ, nor have they bifid spines. As to whether this association of sacral fistula and spina bifida in one child, and the total absence of both in all the others, has any etiological significance or not, only observations made on a vast number of cases can show.

I remain, Sir, yours obediently,

Blackpool, Feb. 27th, 1882. W. HARDMAN.

PARIS.

(From our own Correspondent.)

THE summer session at the Faculty of Medicine began on the 16th instant, and the following is a list of the course of lectures and the names of the professors:—Natural History applied to Medicine, Prof. Baillon; Physiology, M. Ch. Richet (acting for Prof. Béclard); Surgical Pathology, Prof. Guyon; Medical Jurisprudence, Prof. Brouardel; Pharmacology, Prof. Regnauld; Obstetrics, M. Pinard (acting for Prof. Pajot); Comparative and Experimental Pathology, Prof. Vulpian; Medical Pathology, Prof. Péter; Hygiene, Prof. Bouchardat; Materia Medica and Therapeutics, Prof. Hayem; Clinical Medicine at the Hôtel Dieu, Prof. G. Sée; Clinical Medicine at La Pitié, Prof. Lasègue; Clinical Medicine at La Charité, Prof. Hardy; Clinical Medicine at the Hôpital Necker, Prof. Potain; Clinical Pathology of Mental Affections and Diseases of the Brain at Sainte-Anne, Prof. Ball; Diseases of Children at the Enfants Assistés, Prof. Parrot; Syphilitic and Cutaneous Affections at St. Louis, Prof. Fournier; Diseases of the Nervous System, Prof. Charcot; Clinical Surgery at La Charité, Prof. Gosselin; Clinical Surgery at the Hôtel Dieu, Prof. Richet; Clinical Surgery at the Hôpital Necker, Prof. Trélat; Clinical Surgery at La Pitié, Prof. Verneuil; Clinical Ophthalmology at the Hôtel Dieu, Prof. Panas; Clinical Obstetrics at the Clinique d'Accouchements, Prof. Depaul. In addition to the above there are a number of agrégés, or sub-professors of the Faculty, who deliver lectures on the various branches of medicine and surgery, and thus prepare themselves for the higher functions of professor.

In the programme of the session I find that there has been no professor appointed to lecture on Morbid Anatomy, the chair of which Professor Charcot lately vacated on his transference to the newly created clinical chair of Diseases of the Nervous System. It was rumoured that the latter chair was created with the twofold object of gratifying Professor Charcot's long-cherished desire, and of appointing Dr. Cornil, a personal friend of the then Minister of Public Instruction, to the chair of Morbid Anatomy; but certain professors of the Faculty protested against this nomination, not from any objection to Dr. Cornil himself, but on account of the irregularity of the proceeding, the Minister having used his power in the matter without consulting the Council of the Faculty of Medicine. The Professors then adopted the artifice of recommending the translation of Professor Hayem from the chair of Therapeutics to that of Morbid Anatomy, which, however, the Superior Council of Public Instruction refused to sanction. All this occurred during the brief ministry of M. Paul Bert. The chair of Morbid Anatomy is still vacant, but the Faculty of Medicine has recommended three other candidates well known for their works in that particular line—MM. Cornil, Grancher, and Lancereaux. M. Cornil, however, having obtained the greatest number of votes, his nomination may be considered *un fait accompli*. All this manœuvring has revived the question of renewing the system of "concours," which, you are aware, stops at the grade of agrégé.

All deaths in this country, whether of adults or children, should in twenty-four hours after the event be reported at the mairie of the district in which the death takes place, the breach of which is punishable by a rather severe penalty. A medical man attached to the mairie is then deputed to proceed to the residence of the deceased to verify the report, and if he should suspect death was occasioned by other than natural causes, the body is removed to the Morgue, there to be submitted to a post-mortem examination. Coroners' inquests do not exist in France. The law exacts the report of the deaths of all viable infants, but the declaration of miscarriages was not compulsory. Owing to the number of infanticides, however, that are on the increase, a circular is being sent round to accoucheurs and midwives requiring them to report all miscarriages occurring from the sixth week, and, after verification by the medical man from the mairie, the products of conception, which used to be thrown down the pipes leading to the cesspools, are to be put into a wooden box, and removed by the Administration des Pompes Funèbres, to be buried in a particular portion of a cemetery set apart for the purpose. Cremation here would have its *raison d'être* if ever it had, as also the cremating of unclaimed bodies in the hospitals, and those used for anatomical purposes at Clamart and the Practical School of Anatomy. This would reduce the overcrowding of the burial-grounds in anticipation of this mode of sepulture being authorised and introduced into the customs of the country.

A great deal has been said and written on the various means by which lead is introduced into the system and produces its toxic effects, but the most common is that by meats and other alimentary substances preserved in tins, in the soldering of which lead in different proportions is almost invariably employed. In course of time, in spite of all precautionary measures, the contents of the tin become impregnated with the lead, the presence of which may be readily detected by the following simple process, which I extract from a paper lately submitted to the Academy of Sciences. It consists of dropping on the surface of the tin two minims of acetic acid diluted in the proportion of one to ten, and allowing the test liquid to dry in the air. The spot is then touched with a solution of the chromate of potash, one part of the salt to 100 parts of water, which is to be allowed to dry and then washed with plain water. The chromate of lead thus obtained is known by its deep yellow colour, which lasts for several days on the tin; whenever this colour is visible the contents of the tin should be rejected.

Paris, March 21st.

ST. BARTHOLOMEW'S HOSPITAL.

AT a meeting of the Governors of this institution, held on Thursday last, Mr. James Shuter, B.M., M.A. Cantab., F.R.C.S. Eng., was elected assistant-surgeon to the hospital by a large majority. The votes polled by each candidate were as follows:—Mr. Shuter, 127; Mr. Macready, 48.

MEDICAL NOTES IN PARLIAMENT.

IN the House of Lords on Monday, the Maidstone Water Bill was read a third time and passed. The Continuous Brakes Bill, on the motion of Earl de la Warr, was read a second time.

In the House of Commons on Thursday, March 16th, a petition was presented from Edinburgh in favour of the Infectious Diseases Notification Bill.

Private Asylums.

Mr. Stanley Leighton gave notice of the following resolution:—"That the cost of maintaining public asylums should be paid for out of the taxes and not out of the rates, and that private asylums should be abolished."

Analyses in Poisoning Cases.

On Friday, Mr. St. Aubyn asked the Secretary of State for the Home Department whether, in cases of suspected poisoning, when an analysis is directed to be made, he would consider whether it would not be more satisfactory that the suspected person should have an opportunity of being represented professionally at such analysis.—Sir W. Harcourt, in reply, said this was a matter of considerable importance; but the question was only put down for to-day, and he should like to consult with the analysts before giving an answer.

London Water-supply.

On Monday, Mr. Firth gave notice that he would ask the President of the Local Government Board whether the reports upon the London Water-supply, prepared by Dr. Tidy, Dr. Odling, and Dr. Crookes, and which are circulated as being reports "presented to the President of the Local Government Board," are prepared with the authority or at the request or expense of the Local Government Board.

Mr. Warton gave notice that he will move the rejection of Mr. Stansfeld's Bill for repealing the Contagious Diseases Acts.

Michael Davitt.

Sir W. Harcourt, in reply to Mr. Redmond, explained that he could not allow Dr. Kenny to visit Davitt in Portland Prison after the conspicuous political part the doctor had taken; but other friends of the convict had seen him, and they reported well of his condition, stating that he was gaining weight, and that his left lung, which was materially affected, was now sound and strong.

On Tuesday, a petition was presented from Droitwich Union for alteration of the Pauper Lunatics Discharge and Regulation Act, 1871. A Bill to confer further powers upon the Metropolitan Board of Works with respect to streets and buildings was read a first time.

"Ear Vertigo."

Mr. Metge gave notice that on Friday he would ask the Chief Secretary to the Lord Lieutenant of Ireland whether his attention has been called to the case of sub-constable Forbes, of the Kells police force, who on the 21st of October last was fined £3 for being drunk by a court of inquiry held at Kells, which fine was afterwards confirmed by the Inspector-General, notwithstanding the evidence given by two medical men, to the effect that Forbes was not drunk, but suffering from "ear vertigo," a complaint the symptoms of which are of a similar character to those manifested by a person under the influence of drink; and whether, under the circumstances, he will have the fine remitted.

On Thursday, Mr. Gibson asked the President of the Board of Trade if his attention had been directed to a paper read at the Ophthalmological Society by Dr. C. E. Fitzgerald on a case of remarkable deficiency of acuteness of vision in a seaman, and whether he would state the tests applied by the Board of Trade officials to discover the visual acuteness and colour-sight in seamen and railway officials.—Mr. Chamberlain: My attention has been directed to the paper, but I am sorry to say that, in consequence of its being reported in technical and scientific language, I have not been able to ascertain exactly in what the defective vision referred to consisted. In regard to the second question, I may say that all persons applying for certificates as masters or mates have to undergo examination for colour-blindness, and ordinary seamen may undergo such an examination if they choose. The tests consist of coloured cards, coloured glass, and in some cases coloured wool; but no provision is made for testing visual acuteness. As regards the examination of railway officials, the Board has no power.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—At the last meeting of the Council the following Members were elected Fellows of the College:—

Coates, William Martin, L.S.A., Salisbury; diploma of membership dated July, 1833.

Harkin, Alexander, M.D. King's Coll. Aberd., Belfast; June, 1840.

It is stated that 265 candidates have entered their names for the Primary Examination in Anatomy and Physiology for the diploma of Membership of the College.

COLLEGE OF PHYSICIANS IN IRELAND.—At the March Examinations the following obtained the Licences in Medicine and Midwifery of the College:—

MEDICINE.—John Edward Snow Barnes, Charles Granville Clarke, John Bryce Dunlop, Arthur Kennedy, George Cardwell Porter, William Christopher Thompson.

MIDWIFERY.—Charles Granville Clarke, John Bryce Dunlop.

The undermentioned was admitted a Member of the College:

Francis Edward Clarke.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on March 16th:—

Gravely, Frank, Newick, Lewes, Sussex.

Stewart, Rothsay Charles, Clifton-gardens, Maida-vale.

The following gentleman also on the same day passed the Primary Professional Examination:—

Smith, Henry Strade, Royal Infirmary, Bristol.

UNIVERSITY OF OXFORD.—Examinations for the Degree of Bachelor of Medicine, both first and second, will be holden in Trinity Term, on days to be hereafter notified. Candidates for either of these examinations are requested to send their names, on or before May 1st, to the Regius Professor of Medicine, Medical Department, Museum, Oxford.

UNIVERSITY OF CAMBRIDGE.—Professor Humphry, we understand, proposes to take classes for instruction in Surgery, two or three times a week, during the Long Vacation. They will be open to all students entered at the hospital, and are intended more especially for those who, having passed the Second Examination for M.B., desire to pursue their medical studies in Cambridge during the vacation.

VICTORIA HOSPITAL FOR CHILDREN.—The Prince of Wales and Princess Louise (Marchioness of Lorne) visited this hospital on Monday afternoon.

A SANITARY convention was held in Ann Arbor, Michigan, U.S.A., under the auspices of the State Board of Health, from Feb. 28th to March 1st, 1882.

FIVE more deaths were registered last week in Belfast from small-pox; but the disease is gradually declining.

IN response to a representation from the Local Government Board, the Manchester guardians have reduced their vote to the Royal Infirmary from £50 to £25.

THE Princess of Wales has consented to allow her name to be attached to the Children's Hospital at Rhyl, which will accordingly be known in future as the Alexandria Hospital.

AT the annual meeting of the supporters of the Hospital for Diseases of Women and Children, Vincent-square, the Earl of Shaftesbury, who presided, expressed the opinion that the practice of requiring the payment of a fee by out-patients as well as by in-patients was a good one.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning, at the latest.*

ALLAN, F. J., M.B., has been appointed Visiting Physician to the Infirmary for Consumption, Margaret-street.

ANGELL, Mr. ARTHUR, has been reappointed Public Analyst for the Borough of Newport, Isle of Wight.

BARRON, GERALD E., M.B.T.C.D., L.R.C.S.I., has been appointed Medical Officer to the Winkfield District of the Easthampstead Union.

BERINGER, Mr. J. J., has been appointed Public Analyst for the County of Cornwall, vice Vitto, resigned.

BLAXLAND, HERBERT, L.R.C.P.Lond., M.R.C.S., has been appointed Medical Superintendent of Cailand-park Hospital for the Insane, Parramatta, New South Wales.

BROADBENT, JOHN, M.R.C.S., L.S.A.Lond., has been appointed Honorary Surgeon to the Hulme Dispensary.

COLLINGRIDGE, WILLIAM, M.B Cantab., M.R.C.S., has been re-appointed Medical Officer for the Port of London.

CROKER, PATRICK ALFRED, M.B., C.M.Glas., has been appointed Honorary Medical Officer to the Geelong Hospital, Australia.

DAVIDSON, CHARLES, M.D., C.M.Aberd., has been appointed Medical Officer to the Coventry Provident Dispensary.

EVANS, THOS. J., M.R.C.S., has been appointed Medical Officer of Health for the North District of the Llandilo Union.

FAIRCLOUGH, J. J. KENT, M.D., M.R.C.S., has been appointed Honorary Surgeon to the Hulme Dispensary.

GILES, P. BROOME, F.R.C.S.E., L.S.A.Lond., has been reappointed Medical Officer to the Wyeside District of the Weobley Union.

HEALD, ROBERT, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer and Public Vaccinator to the Second District of the Forehoe Union, vice T. L. Lack, resigned.

LANE, J. OSWALD, B.A., M.B.Cantab., M.R.C.S., L.S.A.Lond., has been elected Assistant House-Surgeon to the General Infirmary, Northampton.

PICKUP, WILLIAM J., M.B.Lond., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer to the Coventry Provident Dispensary, vice R. Plowman, L.R.C.P.Lond., M.R.C.S., resigned.

REID, D. BOSWELL, M.R.C.S., has been appointed Honorary Medical Officer to the Geelong Hospital, Australia.

SMITH, S. MABERLY, L.R.C.P.Ed., M.R.C.S., has been appointed Honorary Medical Officer to Geelong Hospital, Australia.

STOCKER, J. R., M.B.Lond., M.R.C.P., has been appointed Sanitary Surveyor and Assistant Emigration Officer to the Marine Department of the Board of Trade at Queenstown.

THOMPSON, LAVINGTON GREY, M.B., C.M.Aber., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed House-Surgeon to the General Hospital, Launceston, Tasmania, vice Stewart.

THORP, BROOK, L.R.C.P.Ed., M.R.C.S., has been appointed Medical Officer to the Deanhouse Workhouse of the Huddersfield Union.

WEARING, RICHARD, M.D., C.M.Ed., has been appointed Medical Officer to the Wavertree District of the West Derby Union.

WHITCOMBE, PHILIP, M.R.C.S., L.S.A.Lond., has been reappointed Medical Officer to the Hospital Ship *Rhin*.

WILSON, JAMES, M.D. St. And., M.R.C.S., has been appointed Medical Officer to the Monkwearmouth West District of the Sunderland Union.

WOOD, JOHN, M.A., M.B.Oxon., &c., has been appointed Medical Officer of Health to the Walsall Rural Sanitary District.

WYER, C. ERSKINE, L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Honorary Medical Officer to the Geelong Hospital, Australia.

Births, Marriages, and Deaths.

BIRTHS.

BRYAN.—On the 19th inst., at Littlehampton, the wife of F. C. Bryan, M.R.C.S., of a daughter.

FRASER.—On the 15th inst., at Earndell, Leamington, Warwickshire, the wife of Deputy Surgeon-General Henry Martyn Fraser, M.D., of a son.

GARDNER.—On the 8th inst., at Ilfracombe, Devon, the wife of John T. Gardner, L.R.C.P.Lond., M.R.C.S., of a son.

MARRIAGES.

ANGUS—ANGUS.—On the 15th inst., at Bewick-street Chapel, by the Rev. J. M. Stephens, B.A., James Acworth Angus, Surgeon, of North Ashfield, to Alice Mary, third daughter of George Angus, of Beechgrove, Newcastle-on-Tyne.

BARCROFT—HARVEY.—On the 20th inst., at St. Stephen's Church, Bayswater, Penrose J. Barcroft, Surgeon R.N., Royal Marine Infirmary, Chatham, to Hélène, widow of the late Hingston Harvey, of Constantinople.

HELME—LEES.—On the 15th inst., at Wesley Chapel, Hill Top, James Milner Helme, M.D., of The Firs, Rusholme, Manchester, second son of James Helme, Lancaster, to Lydia, younger daughter of the late John Lees, of Beacon View, Hill Top, West Bromich.

DEATHS.

ANDERSON.—On the 15th inst., at the Royal Marine Depôt, Walmer, William Anderson, Fleet Surgeon, Royal Navy.

BUDD.—On the 14th inst., at his residence, Ashleigh, Barnstaple, George Budd, Esq., M.D., F.R.S., aged 74.

HOOD.—On the 15th ult., at The Fort, Agra, Bengal, Surgeon Francis E. C. Hood, Army Medical Department, third surviving son of the late Sir William Charles Hood, aged 28.

ROWLAND.—On the 8th inst., at Argoed, Cardiganshire, Rowland Roland, F.R.C.S. Eng., aged 70.

WHITE.—On the 15th inst., at Melville-street, Edinburgh, Surgeon-Major Archibald White, M.D., late H.M. Indian Service, Bengal.

WILLIAMS.—On the 20th inst., at his residence, Holmhurst, Cambridge-park, Twickenham, Joseph Williams, M.D., late of Tavistock-square, London, aged 67.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

BOOKS ETC. RECEIVED.

BAILLIÈRE, TINDALL, & COX, London.

Notes on Surgical Treatment and Minor Operations. By Thomas F. Hopgood, L.R.C.P., M.R.C.S.Lond. pp. 79. Illustrated.

Aids to Rational Therapeutics. 1s. Aids to Diagnosis. 1s. By J. Milner Fothergill, M.D.

Tablets of Materia Medica and Therapeutics. By G. E. Armand Semple, B.A., M.B. Cantab. 1s.

Chronic Bronchitis, its Forms and Treatment. By J. Milner Fothergill, M.D. Edin. pp. 160. With numerous Illustrations.

Examination Questions on the Medical Sciences. Selected and Arranged by Jas. G. Leask, M.B. Aberd. pp. 113.

CHATTO & WINDUS, London.

The Hair, its Treatment in Health, Weakness, and Disease. By Dr. J. Pincus, of Berlin.

CHURCHILL, J. & A., London.

The Medical Adviser in Life Assurance. By E. H. Sieveking, M.D. Second Edition. pp. 195.

Spirillum Fever—Synonyms, Famine or Relapsing Fever—as seen in Western India. By H. Vandyke Carter, M.D.Lond. pp. 446. With Charts.

LEWIS, H. K., London.

Nitro-Glycerine as a Remedy for Angina Pectoris. By Wm. Murrell, M.D., M.R.C.P. pp. 78.

Ringworm, its Diagnosis and Treatment. By Alder Smith, M.B.Lond., F.R.C.S. Second Edition, Rewritten and Enlarged. pp. 166. With Illustrations.

LIVINGSTONE, E. & S., Edinburgh.

The Student's Handbook of the Practice of Medicine. By H. Aubrey Husband, M.B., M.C., &c. Third Edition, Revised and Enlarged. pp. 432. With Illustrations and Tables.

LONGMANS, GREEN, & CO., London.

Vibratory Motion and Sound. By J. D. Everett, M.A., D.C.L. pp. 135. Illustrated.

On Concussion of the Spine, Nervous Shock, and other Obscure Injuries of the Nervous System, in their Clinical and Medico-Legal Aspects. By John E. Erichsen, F.R.S. New and Revised Edition. pp. 344.

MACLACHLAN & STEWART, Edinburgh.

The Diseases of the Spinal Cord. By Byrom Bramwell, M.D., F.R.C.P.Ed. pp. 300. Profusely Illustrated.

MANCEAUX, H., Bruxelles.

Les Névralgie, leur Formes et leur Traitement. Par Prof. C. Vanlair. Deuxième Edition. pp. 347.

NEW SYDENHAM SOCIETY, London.

Clinical Surgery: Extracts from the Reports of Surgical Practice between the years 1869-1876. By Dr. Th. Billroth. Translated from the Original and Edited, with Annotations, by C. T. Dent, F.R.C.S. pp. 518. With 9 Lithographs and 29 Woodcuts.

SPON, E. & F. N., London.

A Handbook of House Sanitation. Reprint of Portions of Mr. Bailey-Denton's Lectures, Enlarged and Revised by his Son, Eardley F. Bailey-Denton, C.E., B.A.Oxon. pp. 218. With numerous Illustrations.

STANFORD, E., London.

Wholesome Houses: a Handbook of Domestic Sanitation and Ventilation. By E. G. Banner, C.E. New and Revised Edition. pp. 124. Illustrated.

WILLIAMS & NORGATE, London.

The Scientific Basis of National Progress, including that of Morality. By G. Gore, LL.D., F.R.S. pp. 218.

WOOD, W., & Co., New York.

A Study of the Tumours of the Bladder. By A. W. Stein, M.D. pp. 94. Illustrated.

The Gas Question, Economic and Sanitary; by Jas. Adams, M.D.—Low's Handbook of the Charities of London for 1882.—Annales Médico-Psychologiques; par les Drs. Baillarger, Esmier, et Foville; Janvier, 1882.—Index Medicus, Vol. IV., No. 1. (Leypoldt, New York.)—The Ophthalmic Review; edited by Dr. K. Grossmann and Priestley Smith.—Sanitary Assurance; a Lecture by Prof. F. de Chaumont, F.R.S. (Churchill.)—Natal in its Relation to South Africa; by James R. Saunders, M.L.C. (Silver & Co.)—Leisure Hour, Sunday at Home, Boy's Own Paper, Girl's Own Paper, Friendly Greetings, March. (Religious Tract Society.)—Birmingham Medical Review.—Oscar Sutton's Appointment Cards.—Note on the Papers by Dr. Norris "on the Development of Mammalian Blood."—New Commercial Plants and Drugs, No. 5; by T. Christie, F.L.S.—Bacon and Shakespeare on Vivisection, in reply to Dean Plumptre.—The Hahnemannian Monthly.—The Weather of 1881, as observed in the Neighbourhood of London; by Edw. Mawley, F.M.S.—Practical River Reform; by Wm. Barness.—Annales Médico-Psychologiques.—Ectropion; by Louis H. Tosswill, M.B.Cantab.—Croupous Pneumonia, is it a Zymotic Disease? by Dr. D. W. Prentiss.—The Use of Constitutional Remedies in the Treatment of Ear Diseases; by S. Theobald, M.D.—The New England Family; by Dr. N. Allen.—Hospital Construction; by Edwin Hutchinson, M.D.—The Foot-and-Mouth Disease and Typhus in Cattle not Infectious; by C. Pigeon, Physician.—What Science is saying about Ireland.—Colles' Fracture; by J. F. Knott, L.K.Q.C.P.I.—The Lying-in Hospital; by J. E. Burton.

METEOROLOGICAL READINGS.

(Taken daily at 5.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, March 23rd, 1882.

Date	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb	Solar Radiation in Vacuo	Max. Temp Shade	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Mar. 17	30·55	W.	46	44	..	62	39	..	Hazy
,, 18	30·35	W.	44	42	..	62	37	..	Foggy
,, 19	30·21	W.	55	50	..	61	37	..	Bright
,, 20	29·80	W.	47	44	..	65	37	..	Bright
,, 21	29·74	W.	46	42	..	52	30	..	Cloudy
,, 22	29·91	N.	39	35	..	45	30	·13	Cloudy
,, 23	30·24	W.	37	35	..	49	30	·03	Hazy

Medical Diary for the ensuing Week.

Monday, March 27.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS. — Operations 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.: on Tuesday, 9 A.M.
MEDICAL SOCIETY OF LONDON.—Dr. Radcliffe Crocker will Exhibit Two Examples of Lichen Planus affecting Mucous Membranes.—Dr. Robert Lee will describe a new and enlarged Form of Inhaling Machine.—Dr. Gilbart Smith will give the Clinical Record of a Pulmonary Cavity that ulcerated through the Intercostal Spaces.—Mr. A. Pearce Gould, "On the Advisability of Enucleating the Axillary Glands in the Removal of Scirrhous Mammæ."

Tuesday, March 28.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.
ROYAL INSTITUTION.—3 P.M. Professor John G. M'Kendrick, "On the Mechanism of the Senses."
ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Dr. S. Fenwick, "On the Presence of Bile in the Saliva, and on the Variations in the amount of Sulphocyanide of Potassium in the Saliva of Persons affected with different Diseases."—Mr. Thomas Bryant, "On a Case of Excision of a Stricture of the Descending Colon through an Incision made for a Left Lumbar Colotomy."

Wednesday, March 29.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL. — Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL. — Operations, 1½ P.M., and on Saturday at the same hour.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN. — Operations, 2½ P.M.
UNIVERSITY COLLEGE HOSPITAL. — Operations, 2 P.M., and on Saturday at the same hour.—Skin Department.—1.45 P.M., and on Saturday at 9.15 A.M.
ROYAL COLLEGE OF PHYSICIANS OF LONDON.—5 P.M. Lumleian Lectures: Dr. Burdon Sanderson, "On Pathology of Inflammation."

Thursday, March 30.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL. — Operations, 2 P.M., and on Friday at the same hour.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.
NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.
ROYAL INSTITUTION.—3 P.M. Professor Tyndall, "On Resemblances of Sound, Light, and Heat."
HARVEIAN SOCIETY.—Dr. Morton, "On Two Cases of Meningitis."—Dr. Ferrier, "On the Pathology of Lead Palsy."

Friday, March 31.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.
ROYAL COLLEGE OF PHYSICIANS OF LONDON.—5 P.M. Lumleian Lectures: Dr. Burdon Sanderson, "On Pathology of Inflammation."
ROYAL INSTITUTION.—3 P.M. Mr. W. Spottiswoode, "On the Electric Discharge in a Magnetic Field."

Saturday, April 1.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Professor H. G. Seeley, "On Volcanoes."

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

THE MELBOURNE HOSPITAL.

"DR. YOUL, city coroner, at an inquest recently held on the body of a man who died at the Melbourne Hospital from erysipelas, in answer to a question from a juror, said:—'As you have alluded to it, I have to say that the only remedy for this is to pull down this building. The hospital is simply saturated with erysipelas. For my part, if I was suffering from a wound, I would rather be placed in a forty acre paddock in a tent than in this hospital. The experience I have had of cases of erysipelas in this institution points to this fact.'" The above is extracted from the *Australasian Medical Gazette*. The President of the Medical Society of Victoria, however, asserts that the statement is an exaggeration, and that more cases of erysipelas are brought into the hospital than arise within it. At the monthly meeting of the Hospital Committee on Jan. 10th, Dr. Miller, the senior resident medical officer, reported that since he assumed office at the beginning of August last, 58 patients had been treated in the male erysipelas ward; of these 45 were admitted with and on account of the disease; the remaining 13 showed no sign of it when admitted, and of them three died. During the same period 13 females were treated for erysipelas, of whom 6 were admitted with the disease, and seven contracted it in hospital; all seven recovered. On two occasions the disease tended to spread. There was ample provision for the isolation of male patients suffering from erysipelas, but for females there are only two beds available. Further, fewer cases of erysipelas had occurred in the old block than in the new pavilions; out of the twenty cases originating in the hospital, twelve occurred in the pavilions.

THE VALUE OF VACCINATION.

To the Editor of THE LANCET.

SIR,—The following case seems to me worth recording, if only to add a mite to the abundance of evidence supporting the value of vaccination.

On June 19th, 1881, I was called to attend two children of Mrs. C——, both afflicted with small-pox, the rash then commencing to appear. The previous history then given me was that the father had never been vaccinated, that he boasted he never had taken small-pox, and did not fear it in the least degree. He contracted the disease on June 8th (eleven days before my being called in), and died on June 12th, leaving a widow and seven small children. Two of these had not been vaccinated, why I could not ascertain. Both contracted the disease, and were removed to the Small-pox Hospital, where the elder one, aged seven, died seven days afterwards; the younger one, aged four, died in three weeks. Now, these two, together with the remaining five, all slept in one bed in an ill-ventilated room in a mews; but although this was the case, there was no further appearance of the disease. The five had been vaccinated, and showed well-marked cicatrices.

In addition to this case I well remember two of a similar character and as well marked occurring in the epidemic of 1871, but as the details of these are not noted, I regret I am not able to quote them accurately.

I am, Sir, yours obediently,
March, 1882. HERBERT J. CAPON, M.D.

THE SALE OF POISONS.

To the Editor of THE LANCET.

SIR,—I believe the "Sale of Poisonous Drugs Act" was intended to prevent poisons being sold to all comers. Here is an illustration of its working. A lady relative of mine went to a much-frequented co-operative store in London, and asked for six ounces of chlorodyne, and it was handed to her with the same unquestioning readiness as if she had asked for so much tooth-powder. Being at the store soon afterwards, I told the foreman of the drug department of this, and asked whether the transaction was according to law. His reply was that chlorodyne is a patent medicine, and the law places no restriction on its sale.

Thus we have a "Poisonous Drugs Act," and can buy poison without stint, just as we have an "Adulteration Act," and get watered milk for breakfast every morning; yet some people are not satisfied, but want more Acts of Parliament, and when they think anything is wrong, would call in "Government" to set it right. I am, Sir, yours, &c.,
March 22nd, 1882. M.D.

RELIGIOUS SERVICES AT WORKHOUSE INFIRMARIES.

A LITTLE breeze was raised at a late meeting of the Board of Guardians of Leeds in reference to a question which has evoked warm discussion in other parish infirmaries than that of the famous northern town. In consequence of some rather noisy demonstrations having occasionally been manifested on the part of a few enthusiasts possessed of more religious fervour than good taste and consideration for the sick and infirm, a resolution was passed giving power to the medical officer at the workhouse hospital to prohibit, if he should see fit, the visits of amateur dispensers of spiritual consolation. At the meeting referred to it was proposed to rescind this resolution, on the ground that, though the present medical officer had the full confidence of the guardians that he would use wisely the power with which he had been invested, yet it might be different with his successor. A member of the Board put the whole question in a nutshell when he observed that the medical officer was responsible for the good order and proper management of the institution, and therefore the matter was one of detail which ought to be left to his judgment. The majority of the guardians had the good sense to perceive the wisdom of this enunciation, and ultimately the resolution was allowed to stand.

Mr. J. G. Bradon.—A recent brochure by Dr. Byrom Bramwell; chapter in Finlayson's Clinical Manual; and Dr. Burdon Sanderson's small work.

Mr. Howell.—M'Ilroy, 7, Grafton-street, Fitzroy-square.

Dr. Gwynne (Pontardulais).—The suggestion does not appear to us to include any new feature.

Mr. Thomas Percival.—We do not approve of qualified practitioners meeting unqualified persons in consultation. This is only part of the question between our correspondent and his neighbour.

MEDICAL PRACTICE IN NEW ZEALAND.

To the Editor of THE LANCET.

SIR,—When I was in England I not unfrequently used to see queries in your correspondence columns asking about the prospects of a medical man in New Zealand. As I have been out here a year or so, I may be able to give some useful information on the subject.

When I arrived here and heard that all visits were charged at least 5s., and midwifery cases 42s., I naturally thought I had got into good quarters, especially as the towns did not look particularly overstocked with doctors; but before I had been here long I found out that things were not nearly so good as they looked, in consequence of several drawbacks. And first I will describe the clubs, which are almost innumerable out here, and contain numbers of members who would be ashamed to belong to such a thing in England. Many of the members are well-to-do tradespeople in the principal streets, living in large houses of their own in the suburbs and in good style. When a club requires new surgeons an advertisement is inserted in the papers for tenders. Two surgeons are appointed, and their services are offered by them for from 16s. to £1 per annum per member. This includes attendance on the member, his wife, and his family under eighteen years of age, medicines included. The extra fee for confinement is 42s., and vaccination 5s., but a great number of people here have midwives and take their children to the vaccination station. It is also quite the exception to get fees paid at once. In many clubs, if the member is single and living with his parents, his attendance and medicine are included in the annual fee. In other clubs you must become a member, and this decreases the profits by 10s. 6d. per annum. When a member joins a club he places his name on which of the two doctors' lists he likes, but he can change to the other one at the end of any quarter; so that there is a sort of rivalry between the two doctors as to who shall please the members best, and club patients are far more troublesome here than in England. With regard to private patients, those worth having keep the old-established men, as in England; the rest change their doctor every few months, and think nothing of it. Homœopaths and advertising quacks secure a good number.

As I intend returning home shortly, I have no interest in deterring others from coming out, but I have been to nearly all the chief towns in New Zealand, and my advice to my brother professionals is not to come here if they value their self-respect, comfort, and prosperity.

I am, Sir, yours, &c.,

March, 1881. ONE WHO HAS BEEN BITTEN.

THE ELECTRICAL EXHIBITION AT THE CRYSTAL PALACE.

To the Editor of THE LANCET.

SIR,—In the special article on the Electrical Exhibition at the Crystal Palace, contained in THE LANCET of March 11th, a difficulty is expressed in finding a name to be given to the apparatus for displaying the electric light. I do not think the word "Electrolier" is a good one for the purpose, nor do I think "Electric-luminier" or "Electric Photofer" much better. I would suggest the word "Electro-lume," which I think overcomes the difficulty, and which has the merit of being fairly short and euphonious.—I am, Sir, yours obediently,

R. W. SUTTON BARRACLOUGH, M.D.

Dulwich-road, Herne-hill, S.E.,
March 20th, 1882.

PHOTOS AND TESTIMONIALS.

L.S.A. Registered, in a letter to us, complains that a cabinet photograph and some original testimonials forwarded by him to "M. S.," in reply to an advertisement for a qualified assistant, have not been returned. By this omission on the part of "M. S." our correspondent states that he has lost a good appointment. No doubt the neglect was the result of thoughtlessness, and will be speedily rectified; but we may remind "L.S.A. Registered" that it is obviously imprudent to forward *original* testimonials, as copies of them only are usually required.

Iconoclast.—We do not think any advantage would be gained by publishing our correspondent's letter. There is much in it irrelevant to the question. He should never rely upon information that "leaks out" or upon private notes from subordinates in a public department; they are very often, unintentionally, quite wrong. We trust the authorities will in future publish the probable number of appointments to be made.

PUERPERAL FEVER: RECOVERY.

To the Editor of THE LANCET.

SIR,—In your impression of Feb. 25th Dr. Hayward asks some questions, which I have been prevented from replying to sooner. Aconite was administered because I had learned to value its action in various inflammatory diseases—e.g., pleurisy, &c. It was selected in preference to opium and mercury because these had proved failures in my previous cases. Let it be remembered, however, that after each poultice one drachm of laudanum was gently rubbed in all over the distended abdomen. The indications which led me to its selection were the high pulse, the abdominal temperature, and the pain—i.e., the inflammatory symptoms.

Since my letter appeared in THE LANCET no doubt Dr. Hayward has seen the experience of Dr. Counsellor, as narrated in your impression of Feb. 25th, where in three cases, which probably were not all of the same type, aconite proved a specific; also the reference of your correspondent to the "System of Midwifery" by Dr. Playfair, and his advocacy of aconite in puerperal septicæmia. I may also add that I had a letter on Feb. 28th from Dr. W. H. Day, of Norwich, telling me that its adoption had saved the lives of several of his patients.

It has been written by an authority on obstetrics: "Upon a review of the numerous descriptions of puerperal fever, there is hardly a form of fever or inflammatory disease which it has not to some extent resembled in character." I do not feel competent to reply in the affirmative to Dr. Hayward's concluding remark, "I suppose he is not advocating the use of aconite as a specific for puerperal fever of all sorts," if "all sorts" include the above category. However, I am bound to say I would now use it in any case that came under my observation, even in the asthenic type, adopting increased precaution in the latter, and also having recourse to atropia in the event of the action of the heart becoming weaker.

I had not seen Dr. Playfair's "Treatise on the Science and Practice of Midwifery," to which I presume your correspondent refers, until I had read THE LANCET of Feb. 25th. My ambition was perfectly satisfied with directing the attention of the profession to what I found useful, and having gained that object, through the wide circulation of your journal, it will, I feel sure, gratify Dr. Playfair to find his experience corroborated by that of others who had not seen his valuable work.

I am, Sir, yours faithfully,

Liverpool, March 21st, 1882. W. H. LAMBART, M.D., M.R.C.S.

L.R.C.P. Lond.—The questions are discussed in an annotation that appeared in our issue of last week, page 451.

Mr. F. A. Gray.—In an early number.

MIDWIVES' MIDWIFERY.

To the Editor of THE LANCET.

SIR,—The women of England owe your valuable journal much gratitude for the notice you have taken of the coroner's inquest held to inquire into the sad death from hæmorrhage during labour of the poor woman at Notting-hill, and the remarks you made on it. It may interest your readers to know that some of the said women of England have at length become alive to the dangers incurred by their poorer sisters at the hands of untrained and incompetent midwives, and that a society has been formed, called the "Matrons' Aid Society" or "Midwives' Institute," having for its objects—firstly, to obtain the licensing and registration of midwives by Act of Parliament; secondly, to promote their higher training and efficiency; and, thirdly, by means of a "quarantine fund," to afford pecuniary aid to members of the society who are debarred for a time by infection of any kind from carrying on their calling. Among the rules to which all midwives joining the society will be required to pledge themselves is one "that they shall at once send for medical aid in all cases of hæmorrhage." A petition to Parliament in favour of the licensing and registration of midwives is already in circulation, and I will forward copies to anyone willing to sign and obtain signatures on receipt of a large stamped and addressed envelope.—I am, Sir, yours faithfully,

ELINOR AGNES REDINGFELD,
Hon. Sec. Matrons' Aid Society.

263, Vauxhall-bridge-road, S.W., March 21st, 1 82.

HOMŒOPATHY NOT TAUGHT AT THE HOMŒOPATHIC SCHOOL.

To the Editor of THE LANCET.

SIR,—As the London School of "Homœopathy" is agitating for a "charter of incorporation" and for power to grant a diploma of L.H. (Licentiate in Homœopathy) to those who are already legally qualified, it is of importance to the profession to know exactly how matters stand. I am personally an advocate for perfect freedom of opinion in medical matters, but I also claim that no titles should be assumed which may by any chance mislead the public. I therefore protest against any legal recognition being given to the aforesaid school, on the ground that its teaching is not that of Hahnemann, the founder of homœopathy, from whose dictum there can be no appeal so far as a definition of homœopathy is concerned.

Now for the proof of what I have asserted. In the *Monthly Homœopathic Review* for this month appears a lecture on "Posology in Relation to Homœopathy," by Dr. A. C. Pope, President of the British Homœopathic Society, and Lecturer on Materia Medica at the London School of Homœopathy. In this lecture (p. 154) Dr. Pope says, "In conclusion, then, I think that when prescribing homœopathically you will generally find the most suitable dose to be one or two drops of the 2nd or 3rd decimal, that is to say, about the 1-100th or 1-1000th of a grain, while a few medicines require to be given in the crude state."

Hahnemann says (note to section 246 of his "Organon," p. 280, Dudgeon's Translation), "The best dose of the properly selected remedy is always the very smallest one in one of the high dynamizations (30), as well for chronic as for acute disease, a truth which is the inestimable property of pure homœopathy." And, again (note to section 287, p. 331, Dudgeon's Translation), "The higher we carry the attenuations, accompanied by dynamization (by two successive strokes) with so much the more rapid and penetrating action does the preparation seem to affect the vital force and to alter the health, with but slight diminution of strength even when this operation is carried very far, in place, as is usual (and generally sufficient), to 30, when it is carried up to 60, 150, 300, and higher." This was published in 1833, and in the remaining ten years of his life Hahnemann carried the dilutions much higher, insisting that the 30th potency was not to be taken as the limit of attenuation.

Hahnemann's teaching may be the height of absurdity or the depth of wisdom; Dr. Pope's teaching may be an improvement on Hahnemann's homœopathy or it may not; but they are diametrically at variance, and they cannot therefore both belong to homœopathy.

I need not now enter into details as to the other differences between the teaching of Hahnemann and the teaching of some of the supporters of the school; suffice it to say that many of the latter indulge in the practice of attenuation of remedies (to which Hahnemann was most emphatically opposed), and to the use of medicines on other principles than the law of similars.

In the same number of the *Monthly Homœopathic Review*, p. 157, there is a report of a case of diphtheria, treated at the London Homœopathic Hospital by cyanide of mercury, 3rd decimal internally, and "the pharynx to be sponged with a weak solution of argent nitr." This may be very good treatment or it may not, but it assuredly is not the homœopathic treatment of Hahnemann. In the *British Journal of Homœopathy*, 1881, p. 58, a writer, whose name is in the "Homœopathic" Directory, says of rheumatic gout, "the greatest amount of speedy benefit I have seen in a chronic case was from the use of Woolridge's tincture, a patent medicine of unknown constitution, probably very complex in character, perhaps containing colchicum." And this advocacy by a professed homœopath of a patent medicine receives no word of censure or even of apology from the editors of a professed homœopathic periodical.

Most heartily do I thank you for your endeavours to put this matter on its proper footing, and to insist that those alone who accept all Hahnemann's practical teachings, and carry them out faithfully in practice, are entitled to the designation "Homœopathic practitioners." I find from this year's Homœopathic Directory that several who formerly professed that system have seen that their position was untenable, and honestly withdrawn their names. May their example be soon followed by many others. In the meantime the public are beginning to find out the difference, and I am informed that within the last few weeks one of the subscribers to the London School of "Homœopathy" has withdrawn her subscription on the ground that the homœopathy of Hahnemann is not taught therein.

Finally, as a choice specimen of the teaching at that school, I will refer you to a lecture there delivered May 6th, 1879, by Dr. Richard Hughes, and published in the *Monthly Homœopathic Review* for June, 1879. In this lecture, speaking of diseases of the liver, Dr. Hughes is reported to have said, "In the treatment of diseases of this organ some of our most cherished polychrists, as arsenic, belladonna, pulsatilla, and rhus, find no place; they have no hepatic action. We have to keep them out of view in choosing our remedies for hepatic affections." Shades of Christison and every other departed toxicologist! Arsenic has no action on the liver! Comment is needless.

I am, Sir, yours obediently,

March 2nd, 1882. A FAITHFUL HAHNEMANNIAN.

Mr. Wm. Henry Hayward.—The question put to us is not very clear. If our correspondent will state it a little more fully, we will endeavour to answer it.

"SWISS EXAMINATIONS."

To the Editor of THE LANCET.

SIR,—I will try to answer Dr. Wise's letter as briefly as possible by simply mentioning the following points.

1. The question of reciprocity is a difficult one for Switzerland, owing to the very unequal value of foreign diplomas and to the still more unequal value of different diplomas of the same country. It would be evidently a great mistake if the Swiss Government considered equally valuable one of the lower British degrees and, for example, the M.D. Lond. or the German State Examination. I may mention here that the English Committee on Swiss medical examinations appointed in April, 1881, after having remarked that the regulations appear to have been made with much care, goes on to say, "The committee views with satisfaction the opportunities offered (to foreigners) by these provisions which are made, seeing that they are made under the circumstances of there not being any international treaty of reciprocity for giving validity to foreign diplomas;" but I am not aware that the Swiss Government is begging for reciprocity, nor that it is ready to grant it, unless steps are taken by foreign countries to establish a more uniform, and in certain cases a higher, standard of examination. It must be remembered that a man duly qualified in Switzerland, France, Germany, &c., has no right to be registered in England, though he must be registered if he will have the full right of practice. The conclusion is that, under actual circumstances, a Swiss wishing to settle in England will do well if he takes an English degree and gets registered, and that an Englishman wishing to practise in Switzerland must pass the State examination unless he be "a man of high scientific reputation or who has been in practice ten years," in which case either a simple *colloquium* or complete exemption from examination will be granted. Foreigners who do not fulfil these conditions and try to practise in Switzerland will be prosecuted. This may be right or wrong, but it is the law, and nobody can complain if he is punished for infringing it.

2. The medical profession being not considered in Switzerland as a trade or a business, I feel unable to follow Dr. Wise's discussion on medicine viewed in a commercial light, for Swiss (as elsewhere, I believe) towns are generally overstocked with medical men, while the country is relatively deprived of them. If the advantages of practising in Switzerland were so questionable as Dr. Wise says, I do not see why we should have every year so many applications from foreigners, nor why some of them should make themselves conspicuous by a pertinacity worthy in itself of better results.

3. As far as frauds are concerned, a fair discussion is hardly possible, everyone professing to say what he has seen and heard. I must therefore content myself with reasserting what I said in my first letter, and granting that circumstances may be, to a certain extent, different according to the university, and more especially to the particular set of students. Dr. Wise seems to have fallen twice among an unprecedentedly bad lot of candidates. I regret it sincerely, but at the same time I am surprised that real and sound knowledge, if possessed by any of them, should not have shone all the more brilliantly on those occasions. I have never seen or heard of anything approaching the "official farce" described by Dr. Wise, and it is a pity that he did not publish his experiences in some Swiss medical paper, where the letter would have produced great sensation and elicited by discussion some interesting facts about the imaginative power of the writer. If frauds are winked at in Switzerland, and if books and other things are allowed at the written examinations, surely Dr. Wise would have been wiser if he had availed himself of that gracious permission and passed his examination. But the idea that the authorities favour fraudulent practices, and after that allow 26 per cent. of the candidates to be plucked mercilessly, will appear to many of your readers original and inconsistent; to those who know the truth it appears unfounded and mischievous.

I remain, Sir, yours obediently,

Queen Anne-street, W., March 11th, 1882. J. KAESER, M.D.

*** This controversy must now cease.—ED. L.

Student.—The formula of urea is CH_4N_2CO, and that of water H_2O. The equation is: $(NH_4)_2CO_3 = 2H_2O + CH_4N_2O$.

Enquirens and *A Physician* have not enclosed their cards.

Dr. Norris (Birmingham).—Next week.

W. P.—Friedländer's Observations are described in an article in Virchow's *Archiv*, vol. 87, part 2, Feb. 1882, p. 319.

"FRESH VACCINE LYMPH."

To the Editor of THE LANCET.

SIR,—In reply to "L.R.C.P.'s" letter in THE LANCET of the 18th inst. on the above subject, I beg to state that about two months ago, being out of vaccine lymph, I applied personally to the National Vaccine Establishment, and received two tubes, the contents of which proved quite useless, for though the lymph contained in them was not solidified, yet the arms, which I did in four places in each instance, did not take. The next week I vaccinated the children again from another source, when each arm took in all four places, each place being very full. If any of the readers of THE LANCET can inform me of a reliable source of good lymph, calf or human, they will supply a great want felt by, yours truly,

March 18th, 1882. J. R. SEYMOUR, L.R.C.P., L.R.C.S. Ed.

Dr. G. R. Barnes (Ewell) also writes to complain of the inefficacy of the lymph obtained from the N. V. E., and thinks Government ought to be memorialised on the subject.

SYPHILIS AMONG THE BLACKS.

DR. J. C. NEAL, of Florida, U.S.A., says there are more cases of syphilis among the coloured people in his State than of all other diseases combined. Infant mortality, rickets, diseased teeth, and other signs of enthetic disease are, he states, becoming more and more prevalent among the negroes.

"SALICYLATE OF SODA IN THE TREATMENT OF ACUTE TONSILLITIS."

To the Editor of THE LANCET.

SIR,—If Dr. Routh will try the treatment I have carried out for years in cases of acute tonsillitis he will never meet with the occurrence of suppuration or subsequent rheumatism, and he will have his patients quite convalescent in four days.

℞ Bicarbonate of potash twenty grains, syrup, water to the half-ounce; citric acid fifteen grains, essence of lemon one drop, water to the half-ounce. These two mixtures to be taken together in a state of effervescence every four hours. A black currant and guaiacum lozenge (Throat Hospital Pharmacopœia) to be taken frequently; the throat to be gargled three or four times a day with twenty or twenty-five minims of tincture of iodine in one ounce of water. No poultices, no steam inhalations, no aperients are required. The patient should take plenty of beef-tea and milk and a sherry glassful of port wine (about one ounce and a half) three times daily. When suppuration has actually commenced, as shown by the throbbing in the tonsils and pain in the ear, all that is required is the iodine gargle, the port wine, and beef-tea. When convalescence is established, it is best to leave the patient quite alone, without medicine of any kind, as strength is very quickly regained, and medicine does not in any way tend to aid recovery.

I should be glad if those who try this treatment will put the results on record.

I am, Sir, your obedient servant,

Kingston-on-Thames, March 18th, 1882. F. P. ATKINSON, M.D.

To the Editor of THE LANCET.

SIR,—Allow me to confirm the experience of Dr. Joseph Hunt as to the value of treatment of acute tonsillitis by the salicylates, of which I have had constant experience for upwards of five years, I having advocated its use and given a form for its administration in the first edition of my work on "The Throat and its Diseases," published more than four years ago. In fact, so far as constitutional measures are concerned, all other remedies have at the Central Throat and Ear Hospital been superseded by the salicine compounds. They are also of the greatest value combined with iron or cinchona in the majority of forms of sub-acute and chronic tonsillar inflammation.

It may be interesting to your readers to know that the local treatment of acute tonsillitis by the application of constant cold, by means of Leiter's irrigating thermal regulator, will in the worst cases give more speedy and complete relief than even the drug under consideration, it being only necessary to give a preliminary purge—a *sine qua non*, by-the-by, of all treatment of tonsillar inflammations.

I am, Sir, your obedient servant,

LENNOX BROWNE, F.R.C.S. Ed.

Weymouth-street, Portland-place, W.,
March 18th, 1882.

ERRATA.—In Dr. Capon's article published last week two or three errors escaped correction owing to delay in the return of the proof. On Dec. 6th *three* (not "two") ounces of castor oil were administered. At the commencement of the fifth paragraph "P.M." should be A.M. The necropsy was performed *ten* (not "two") hours after death. In the seventh line from the end of the article the word "not" should be omitted.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Braxton Hicks, London; Dr. Acland, Oxford; Dr. Julius Pollock, London; Mr. Lennox Browne; Dr. Barraclough; Mr. Moore, Hazel-grove; Dr. Neale, London; Mr. Meggett, Scarborough; Mr. J. R. Burton, Liverpool; Dr. Turle, Finchley; Dr. Semon, London; Dr. Lambart; Mr. Morris, Hereford; Mr. R. H. Carpenter; Dr. Gill, Stratford-on-Avon; Mr. Jessett, Erith; Mr. J. F. Knott; Mr. Mitchell Wilson, Doncaster; Mr. Mizon; Dr. Capon; Mr. W. L. Thomas, London; Mr. Knights, Stockton; Dr. Wahltuch, Hulme; Dr. Macfie Campbell, Liverpool; Brigade-Surgeon Oughton; Dr. Gwynne, Pontardulais; Mr. J. W. Pratt, Wivelscombe; Dr. Alder Smith, London; Dr. Eade, Norwich; Mr. Howell, London; Dr. Atkinson, Kingston; Mr. Flinn, Brownhills; Mr. Nolan, Pietermaritzburg; Mr. Seymour, London; Mr. R. Rawlinson, London; Dr. Cartwright Reed, Masera; Dr. Ward, Blyth; Mr. Childs, Crewe; Mr. Chatterjie, Proma; Deputy Surgeon-General Moore, Bombay; Dr. Blane, Bombay; Messrs. Stiff and Son, London; Mr. Wherry, Cambridge; Mr. Welton, London; Dr. Evatt; Mr. A. Duke, Dublin; Dr. Hitchman; Mr. Percival, Knottingley; Dr. Smyth, Shipley; Mr. Braden, Lewes; Dr. Grabham, Pontefract; Mr. G. P. Dale, Scarborough; Dr. Sturges, London; Mr. Robinson, Easingwold; Mr. Brook, Huddersfield; Messrs. Stewart and Co., London; Miss Bray, Guildford; Dr. Mathews; Messrs. Harrison and Brass, Elgin; Mr. Johnston, Glasgow; Rev. F. Blatch, Homerton; Mr. Teevan, Dartmouth; Mr. Somerhill; Mr. Brown, Westgate-on-Sea; Mr. Whitcombe, Birmingham; Messrs. Squire, Fox, and Co., London; Dr. Orton, Newcastle; Mr. Maclehose, Glasgow; Dr. Cooke, Sheffield; Mr. Brets, Aberdeen; Messrs. Porteous and Co., Glasgow; Dr. Stephen Mackenzie, London; Dr. G. Barnes, Ewell; Mr. Cowan, Birmingham; Mr. Stocker, London; Mr. Stillitard, Birmingham; Dr. Collins, London; H. M., Great Yarmouth; G. W. R.; C. J. W.; Anxiety; Xerxes; Iconoclast; Veritas; Perplexed Junior; G. S., Doncaster; W., Brixton; L. S. A. Registered; M.B., B.S. Lond.; L.R.C.P. Lond.; &c., &c.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Irving, Stanmore; Dr. Williams, Penmachno; Dr. Campbell, St. Albans; Mr. Keay, Eastbourne; Messrs. Cassell and Co., London; Mr. Whitcombe, Birmingham; Mr. Somerville, Edinburgh; Mr. Watson, Scarborough; Mr. Smith, Aberdeen; Mr. Beresford, East Ilsley; Dr. Hargitt, Leicester; Mr. Blakeney, Croydon; Mr. Whiteley, Leeds; Dr. Gardner, Ilfracombe; Mr. Oliver, Stockton-on-Tees; Dr. Louttit, Blackheath; General Waddington, London; Mr. Dunn, Sandwich; Mr. Oliver, Newcastle-on-Tyne; Mr. Woods, Brompton; Dr. Bramwell, Edinburgh; Mr. Soper, Dartmouth; Messrs. Beal and Co., Brighton; Mr. Berks, Sheffield; Messrs. Macniven and Cameron, Glasgow; Mr. Studens, Edinburgh; Dr. Creed, New-cross; Dr. Moore, St. Leonards-road; Dr. Goodson, Stratford; Mr. Bryan, Littlehampton; Mr. Field, London; Mr. Maxwell, Gainsborough; Mr. Jesse, Henbury; The Secretary, Newark-on-Trent; Medicus, Stepney; A. B. C., Tufnell-park; Verona; B. C.; Oxus; P. R. N., Leicester; J. M.; G. R. T., Maidstone; A. M.; B. R.; P.; Medicus, Seaford; M. B., Finsbury; R. S. T.; M. B., Brompton; B. F.; M.R.C.S., London; C. E. W., London; A. H. J.; Miles; Viennese; Medicus, Normantree; A. B., Polgate; Doctor, Preston; Omega, Brighton; M.D., Sheffield; Mr. L., Hanover; Spes, London; &c., &c.

Indianapolis Journal, Woodford News, Northern Echo, Night and Day, The Parisian, Weekly Exchange, Halifax Courier, Malton Messenger, North Devon Journal, Church of England Pulpit, Daily Register, North Star, North-Western Gazette, &c., have been received.

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